SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name:	Formaldehyde Solution
CAS number:	50-00-0
Synonyms:	No information available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses : No information available.

1.3 Details of the supplier of the safety data sheet

Company : Lab Alley, LLC
12501 Paul's Valley Road Suite F
Austin, TX 78737
U.S.A.

Telephone : 512-668-9918
Fax : 512-886-4008

1.4 Emergency telephone

Emergency Phone # : US & Canada: 1-800-535-5053 INFOTRAC
International 1-352-323-3500 INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3)
Acute toxicity - Oral (Category 3)
Skin corrosion/irritation (Category 2)
Carcinogenicity (Category 1A)
Acute hazard to the aquatic environment (Category 3)

2.2 GHS Label elements, including precautionary statements

Pictogram:

Signal Word: **Danger**

Hazard statement(s): Flammable liquid and vapor. Toxic if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause a allergic skin reaction. May cause cancer. Causes damage to organs. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life.

Precautionary statement(s): **Prevention** - Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/ lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. **Response** - IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

3.1 Components

Component	CAS Number	Percent
Formaldehyde	50-00-0	37
Methyl Alcohol	67-56-1	10-15

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice:	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
In case of inhalation:	Move to fresh air. Call a physician or poison control center immediately. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration.
In case of eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.
In case of skin contact:	Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. Call a physician or poison control center immediately. If skin irritation or an allergic skin reaction develops, get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
In case of ingestion:	Drink a few glasses of water or milk. Never give liquid to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin and eye burns. Toxic if swallowed. May cause allergic skin reaction. Toxic in contact with skin. Toxic if inhaled.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable (and unsuitable) extinguishing media	Water spray, foam, dry powder or carbon dioxide. Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Specific hazards arising from the substance or mixture

Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode.

5.3 Special protective equipment and precautions for firefighters

Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

5.4 Further information

None.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. See Section 8 of the MSDS for Personal Protective Equipment.

6.2 Environmental precautions

Do not contaminate water sources or sewer. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use only non-sparking tools. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

6.4 Reference to other sections

No additional information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use explosion-proof ventilation equipment. Use only non-sparking tools. Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Do not breathe dust/ fume/gas/mist/vapors/spray. Wash hands thoroughly after handling.

Hygiene measures

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do not get this material in contact with skin. Do not get in eyes. Contaminated work clothing should not be allowed out of the workplace

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Keep from freezing.

SECTION 8. Exposure controls/personal protection

8.1 Occupational exposure limits

Listed below for the product components that have regulatory occupational exposure limits (OEL's) established.

Chemical identity	Type	Exposure Limit values	Source
FORMALDEHYDE	Ceiling	0.3 ppm	US. ACGIH Threshold Limit Values (2011)
	REL	0.016 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	Ceil_Time	0.1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	0.75 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)
	STEL	2 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)
	OSHA_ACT	0.5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)
	TWA	0.75 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	2 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

METHYL ALCOHOL	TWA	200 ppm		US. ACGIH Threshold Limit Values (2011)
	STEL	250 ppm		US. ACGIH Threshold Limit Values (2011)
	STEL	250 ppm	325 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	200 ppm	260 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	200 ppm	260 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	200 ppm	260 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	250 ppm	325 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Biological limit values

Chemical identity	Exposure Limit values	Source
METHYL ALCOHOL (methanol: Sampling time: End of shift.)	15 mg/l (Urine)	ACGIH BEL (2011)

8.2 Exposure controls

Appropriate engineering controls

No information available.

Personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin and body protection

Chemical resistant gloves. Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation use suitable respirator. Respirator type: Chemical respiratory with organic vapor cartridge and full facepiece.

Control of environmental exposure

Do not contaminate water sources or sewer. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State Liquid.
Appearance Colorless.
Odor Pungent.
Odor Thresh No data available.
pH 3.0

Melting Point/Range -15 °C
Boiling Point/Range 96 °C
Flash Point 60 °C
Evaporation Rate No data available.
Flammability (solid, gas) No data available.
Flammability or explosive limit

Upper : 73%
Lower : 7.0%

Vapor Pressure	0.17 kPa
Vapor Density	No data available.
Density	1.08 (20 °C)
Solubility	Completely soluble in water.
Partition coefficient; n-octanol/water	No data available.
Autoignition Temp	300 °C
Decomposition Temp	No data available.
Viscosity	No data available.
Molecular Formula	CH2O
Molecular Weight	30.03
VOC Content(%)	No data available.
Oxidizing properties	Not oxidizing.

9.2 Other safety information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Heat, sparks, flames. Contact with incompatible materials.

10.5 Incompatible materials

Heat, sparks, flames. Contact with incompatible materials.

10.6 Hazardous decomposition products

Oxides of Carbon. Formaldehyde.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Formaldehyde	———	———	0.48 mg/l (Rat, 4hr)
Methyl alcohol	———	15,800 mg/kg (Rabbit)	87.5 mg/l (Rat, 6hr)

Product Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Formaldehyde solution	270.27 mg/kg - Oral Acute Toxicity Estimate (ATE)	———	———

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity

No mutagenic components idnetified.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

FORMALDEHYDE	Overall evaluation: 1. Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

FORMALDEHYDE	Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

FORMALDEHYDE	No data available.

Reproductive toxicity

No components toxic to reproduction.

Specific target organ toxicity - single exposure

Respiratory System, Central nervous system. - Causes damage to organs.

Specific target organ toxicity - repeated exposure

Eyes, Central nervous system. - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Not classified.

Chronic effects

No information available.

11.2 Additional information

Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.

SECTION 12. Ecological information

12.1 Toxicity

Ecotoxicity:

Fish

Product:	No data available.
Specified substance(s):	
FORMALDEHYDE	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 22.61 - 25.71 mg/l Mortality LC 50 (Bluegill (Lepomis macrochirus), 96 h): 25.4 - 34 mg/l Mortality
METHYL ALCOHOL	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 18,000 - 20,000 mg/l Mortality LC 50 (Fathead minnow (Pimephales promelas), 96 h): 28,200 mg/l Mortality

Aquatic invertebrates

Product:	No data available.
Specified substance(s):	
FORMALDEHYDE	EC 50 (Water flea (Daphnia magna), 48 h): 29 mg/l Intoxication
METHYL ALCOHOL	EC 50 (Water flea (Daphnia magna), 48 h): 20,450 - 29,350 mg/l Intoxication LC 50 (Water flea (Daphnia magna), 48 h): 2,461 - 4,395 mg/l Mortality

12.2 Persistence and Degradability

There is no data on the degradability of this product.

12.3 Bioaccumulative Potential

No data available on bioaccumulation.

12.4 Mobility in Soil

The product is water soluble and may spread in water systems.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Harmful to aquatic organisms.

SECTION 13. Disposal considerations

13.1 Waste Disposal Methods

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Do not allow to enter drains, sewers or watercourses.

Contaminated packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport information

DOT

UN-No	UN1198
Proper Shipping Name	Formaldehyde solutions, flammable
Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

IATA

UN-No	UN1198
Proper Shipping Name	Formaldehyde solutions, flammable
Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

IMDG/IMO

UN-No	UN1198
Proper Shipping Name	Formaldehyde solutions, flammable
Hazard Class	3
Subsidiary Hazard Class	8
Packing Group	III

SECTION 15: Regulatory Information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

FORMALDEHYDE

CERCLA Hazardous Substance List (40 CFR 302.4):

FORMALDEHYDE	Reportable quantity: 100 lbs.
METHYL ALCOHOL	Reportable quantity: 5000 lbs.

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

X	Acute (Immediate)	X	Chronic (Delayed)	X	Fire		Reactive		Pressure Generating

SARA 302 Extremely hazardous substance

Chemical identity	RQ	Threshold Planning Quantity
FORMALDEHYDE	100 lbs.	500 lbs.

SARA 304 Emergency release notification

Chemical identity	RQ
FORMALDEHYDE	100 lbs.
METHYL ALCOHOL	5000 lbs.

SARA 311/312 Hazardous chemical

Chemical identity	Threshold Planning Quantity
FORMALDEHYDE	500 lbs
METHYL ALCOHOL	500 lbs

SARA 313 (TRI reporting)

Chemical identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
FORMALDEHYDE	10000 lbs	25000 lbs.
METHYL ALCOHOL	10000 lbs	25000 lbs.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

FORMALDEHYDE Reportable quantity: 100 lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

FORMALDEHYDE Threshold quantity: 15000 lbs

US state regulations

US. California Proposition 65

FORMALDEHYDE	Carcinogenic.
METHYL ALCOHOL	Developmental toxin. WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

FORMALDEHYDE	Listed
METHYL ALCOHOL	Listed

US. Massachusetts RTK - Substance List

FORMALDEHYDE	Listed
METHYL ALCOHOL	Listed

US. Pennsylvania RTK - Hazardous Substances

FORMALDEHYDE	Listed
METHYL ALCOHOL	Listed

US. Rhode Island RTK

FORMALDEHYDE	Listed
METHYL ALCOHOL	Listed

Inventory Status:

Australia AICS:	On or in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory.
EU EINECS List:	On or in compliance with the inventory.
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	On or in compliance with the inventory.
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory.
Switzerland Consolidated Inventory:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

SECTION 16: Other information

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Disclaimer:

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.