

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name Formaldehyde 4%

CAS number See section 3

Synonyms N/A

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

Identified uses Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
 12501 Pauls Valley Road
 Austin, Texas 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)

Acute Toxicity - Oral Category 4
 Acute Toxicity - Dermal Category 3
 Acute Toxicity - Inhalation Category 3
 Skin Corrosion / Irritation Category 2
 Eye Damage / Irritation Category 1
 Respiratory Sensitizer Category 1
 Skin Sensitizer Category 1
 Germ Cell Mutagenicity Category 1
 Carcinogenicity Category 1
 Reproductive Toxicity Category 1
 Specific Target Organs/Systemic Toxicity Following Single Exposure Category 1
 Specific Target Organs/Systemic Toxicity Following Repeated Exposure Category 1
 Hazardous to the Aquatic Environment (Acute) Category 3

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	<p> H302 Harmful if swallowed. H311 Toxic in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H331 Toxic if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H340 May cause genetic defects. H350 May cause cancer. H360 May damage fertility or the unborn child. H370 Causes damage to organs. H372 Causes damage to organs through prolonged or repeated exposure. H402 Harmful to aquatic life. </p>

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe fumes, mist, vapors, or spray.
P261 Avoid breathing fumes, mist, vapors, or spray.
P264 Wash arms, hands and face 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 must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves and eye protection.
P285 In case of inadequate ventilation wear respiratory protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304+P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311 IF exposed: Call a POISON CENTER or physician.
P308+P313 IF exposed or concerned: Get medical attention.
P310 Immediately call a POISON CENTER or physician.
P311 Call a POISON CENTER or physician.
P312 Call a POISON CENTER or physician if you feel unwell.
P314 Get medical attention if you feel unwell.
P321 Specific treatment (Wash areas of contact with water).
P330 Rinse mouth.
P332+P313 If skin irritation occurs: Get medical attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or physician.
P361 Take off immediately all contaminated clothing and wash it before reuse.
P362 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents in accordance with local, state, federal and international regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	-	7732-18-5	> 95%
Formaldehyde	-	50-00-0	>= 1 - < 5 %

Methyl Alcohol	-	67-56-1	>= 1 - < 3 %
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SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	Show this sheet to a doctor if medical advice is needed.
If inhaled	IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
In case of skin contact	IF ON SKIN: Wash with plenty of soap and water. May cause irritation and dermatitis.
In case of eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.
If swallowed	IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Dilute immediately with water or milk. Induce vomiting. Call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. Contains Formaldehyde, a suspected carcinogen. Irritating to the eyes, respiratory system and skin. May cause sensitization by inhalation or skin contact. May be fatal if ingested. If ingested, give large quantity of water and induce vomiting. Call a physician. Wash areas of contact with water. If inhaled, remove to fresh air. Contains a chemical known to the state of California to cause cancer. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May cause irritation and dermatitis.

4.3 Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute immediately with water or milk. Induce vomiting. Call a physician.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use any means suitable for extinguishing surrounding fire.

Unsuitable extinguishing media None identified.

5.2 Specific hazards arising from the substance or mixture

Not considered to be a fire or explosion hazard.

5.3 Special protective equipment and precautions for firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

5.4 Further information

Flash Point No data available.

Autoignition Temperature No data available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No data available.

Sensitivity to Static Discharge No data available.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

6.2 Environmental precautions

Avoid release into the environment.

6.3 Methods and materials for containment and cleaning up

Ventilate area of leak or spill. Absorb with suitable material and save for proper disposal.

6.4 Reference to other sections

Refer to protective measures listed in Sections 7 and 8. See section 13 for proper disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Use with adequate ventilation.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store locked up. Protect from freezing and physical damage. Store at room temperature.

Incompatibilities

Strong oxidizing agents, alkalis, acids, phenols, urea.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Formaldehyde	PEL	0.75 ppm
	STEL	2 ppm
Methanol	TWA	200 ppm
	STEL	250 ppm

US. ACGIH Threshold Limit Values

Component	Type	Value
Formaldehyde	TWA	0.1 ppm
	STEL	0.3 ppm
Methanol	TWA	200 ppm
	STEL	250 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Formaldehyde	TWA	0.016 ppm
	C	0.1 ppm
Methanol	TWA	200 ppm
	ST	250 ppm

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal

Body Protection

Protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear, colorless
Odor	No data available
Odor Threshold	No data available
pH	No data available
Melting Point/Range	Approximately 0°C
Boiling Point/Range	Approximately 100°C - Approximately 100°C
Evaporation Rate	No data available
Flammability (solid)	No data available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	1.0
Solubility	Miscible
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No data available
Decomposition Temp	No data available
Viscosity	No data available
Molecular Formula	No data available
Molecular Weight	No data available
VOC Content(%)	No data available

Oxidizing properties

No data available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under normal conditions of use and storage.

10.2 Chemical stability

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

Data not available.

10.4 Conditions to avoid

Incompatibilities. Freezing temperatures.

10.5 Incompatible materials

Strong oxidizing agents, alkalis, acids, phenols, urea.

10.6 Hazardous decomposition products

Data not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Formaldehyde	Rat: 100 mg/kg	rabbit: 270 uL/kg	Rat: 203 mg/m3

Skin corrosion/irritation

Causes skin irritation. Wash arms, hands and face thoroughly after handling.

Serious eye damage/eye irritation

Causes serious eye damage. Wear protective gloves and eye protection.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace.

Germ cell mutagenicity

May cause genetic defects. Obtain special instructions before use.

Carcinogenicity

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Formaldehyde	50-00-0	Group 1	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product.

Reproductive toxicity

May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

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

DOT (US)

UN Number	Not regulated
Proper Shipping name	Not regulated
Hazard Class	None
Packaging Group	Not regulated
Technical name	Formaldehyde 4% Solution

IMDG

UN Number	Not regulated
Proper Shipping name	Not regulated
Hazard Class	None
Packaging Group	Not regulated
Technical name	Formaldehyde 4% Solution

IATA

UN Number	Not regulated
Proper Shipping name	Not regulated
Hazard Class	None
Packaging Group	Not regulated
Technical name	Formaldehyde 4% Solution

SECTION 15: Regulatory information

US federal regulations

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

Formaldehyde: Listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Formaldehyde : 100 lb RQ

Methanol : 5,000 lb RQ

SARA 304 Emergency release notification

Formaldehyde : 100 lb RQ

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Formaldehyde: Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Formaldehyde: Listed.

SARA 311/312 Hazardous

Fire Hazard, Acute Health Hazard, Chronic Health Hazard.

SARA 313 (TRI reporting)

Formaldehyde. CAS-No. 50-00-0.

Methanol. CAS-No. 67-56-1.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Formaldehyde: Listed.

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

Formaldehyde : 15,000 lb TQ

Safe Drinking Water Act

Formaldehyde : 100,000 lb RQ

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Formaldehyde: Listed.

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

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Formaldehyde: Listed.

Methanol: Listed.

California Proposition 65

Formaldehyde: Listed - Cancer.

Methanol: Listed - Developmental.

SECTION 16: Other information

Date of Issue: 6/12/2025

SECTION 17: 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.