

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Formaldehyde, 37% w/w
CAS-No.	: 50-00-0
Product code	: LC14650
Formula	: CH ₂ O
Synonyms	: formic aldehyde, 37% / formol, 37% / methanal, 37% / methyl aldehyde, 37% / methylene glycol, 37% / methylene oxide, 37% / oxomethane, 37% / oxomethylene, 37% / paraform, 37% / tetraoxymethylene, 37%

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Chemical intermediate Disinfectant Laboratory chemical
Recommended use	: Laboratory chemicals
Restrictions on use	: Not for food, drug or household use

1.3. Supplier

LabChem, Inc.
1010 Jackson's Pointe Ct.
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or +1-703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	H226 Flammable liquid and vapor
Acute toxicity (oral) Category 4	H302 Harmful if swallowed
Acute toxicity (dermal) Category 4	H312 Harmful in contact with skin
Acute toxicity (inhalation:vapor) Category 2	H330 Fatal if inhaled
Skin corrosion/irritation Category 1C	H314 Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318 Causes serious eye damage
Skin sensitization, Category 1	H317 May cause an allergic skin reaction
Germ cell mutagenicity Category 2	H341 Suspected of causing genetic defects
Carcinogenicity Category 1A	H350 May cause cancer (Inhalation)
Specific target organ toxicity (single exposure) Category 1	H370 Causes damage to organs (central nervous system, optic nerve, respiratory system)
Hazardous to the aquatic environment - Acute Hazard Category 2	H401 Toxic to aquatic life
Full text of H statements : see section 16	

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: H226 - Flammable liquid and vapor H302+H312 - Harmful if swallowed or in contact with skin H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction

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	H318 - Causes serious eye damage H330 - Fatal if inhaled H341 - Suspected of causing genetic defects H350 - May cause cancer (Inhalation) H370 - Causes damage to organs (central nervous system, optic nerve, respiratory system) H401 - Toxic to aquatic life
Precautionary statements (GHS US)	: 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, lighting, ventilating equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P260 - Do not breathe mist, vapors, spray. P264 - Wash exposed 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. Contaminated work clothing must not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective clothing, protective gloves, eye protection, face protection. P284 - Wear respiratory protection. 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 - IF INHALED: 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. P308+P313 - IF exposed or concerned: Get medical advice/attention. P310 - Immediately call a poison center or doctor/physician. P363 - Wash contaminated clothing before reuse. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to comply with local, state and federal regulations.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Multi-constituent
Name : Formaldehyde, 37% w/w
CAS-No. : 50-00-0

Name	Product identifier	%	GHS US classification
Water	(CAS-No.) 7732-18-5	48 – 53	Not classified
Formaldehyde	(CAS-No.) 50-00-0	37	Acute Tox. 1 (Inhalation:gas), H330 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350
Methanol	(CAS-No.) 67-56-1	10 – 15	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

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SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. Immediately consult a doctor/medical service.
- First-aid measures after skin contact : Do not apply (chemical) neutralizing agents without medical advice. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice.
- First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Immediately consult a doctor/medical service. Call Poison Information Centre (www.big.be/antigif.htm). Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Do not give chemical antidote. Doctor: gastric lavage.

4.2. Most important symptoms and effects (acute and delayed)

- Potential Adverse human health effects and symptoms : Odour tolerance may develop. Toxic if swallowed. Causes severe skin burns. Toxic in contact with skin. Toxic if inhaled. May cause respiratory irritation. Causes serious eye damage.
- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/effects after inhalation : Runny nose. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Possible oedema of the upper respiratory tract. Possible laryngeal spasm/oedema. Respiratory difficulties. Risk of lung edema.
- Symptoms/effects after skin contact : Caustic burns/corrosion of the skin.
- Symptoms/effects after eye contact : Corrosion of the eye tissue.
- Symptoms/effects after ingestion : Nausea. Vomiting. Diarrhoea. AFTER ABSORPTION OF LARGE QUANTITIES: Central nervous system depression. Dizziness. Blood in vomit. Blood in stool. Shock. Disturbances of consciousness. Change in the blood composition. Change in urine composition. Urine discolouration.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Skin rash/inflammation. Coughing. Possible inflammation of the respiratory tract. Respiratory difficulties.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance. Fomepizole or ethanol treatment may be used at the discretion of qualified medical personnel.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand.
- Unsuitable extinguishing media : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2. Specific hazards arising from the chemical

- Fire hazard : DIRECT FIRE HAZARD. Material presenting a fire hazard. INDIRECT FIRE HAZARD. Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
- Explosion hazard : INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
- Hazardous decomposition products in case of fire : Upon combustion: CO and CO2 are formed.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it. Remove ignition sources. Stop leak if safe to do so.

6.1.1. For non-emergency personnel

Protective equipment : Gas-tight suit (EN 943). Corrosion-proof suit (EN 14605).
Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Close doors and windows of adjacent premises. No naked flames. Keep containers closed. Wash contaminated clothes.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Do not breathe gas, fumes, vapor or spray.
Emergency procedures : If a major spill occurs, all personnel should be immediately evacuated and the area ventilated. Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Dilute toxic gases/vapours with water spray. Take account of toxic/corrosive precipitation water.
Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use earthed equipment. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Exhaust gas must be neutralised. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use.
Incompatible products : Strong oxidizers. Strong bases. metals. Acid chlorides. Acid anhydrides. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.
Storage temperature : < 55 °C
Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. strong acids. (strong) bases.
Storage area : Store in a cool area. Keep container in a well-ventilated place. Keep locked up. Provide for a tub to collect spills. Unauthorized persons are not admitted. Meet the legal requirements.
Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials : SUITABLE MATERIAL: stainless steel. aluminium. HDPE. LDPE (Low Density Poly Ethylene). MATERIAL TO AVOID: steel. iron. copper. zinc. nickel. paper. cardboard. glass.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Formaldehyde, 37% w/w (50-00-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH Ceiling (mg/m³)	0.37 mg/m³
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [2]	0.75 ppm
OSHA PEL (STEL) [2]	2 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	20 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA [ppm]	0.016 ppm
NIOSH REL C [ppm]	0.1 ppm 15 min.
Formaldehyde (50-00-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH Ceiling (mg/m³)	0.37 mg/m³
ACGIH Ceiling (ppm)	0.3 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [2]	0.75 ppm
OSHA PEL (STEL) [2]	2 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	20 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA [ppm]	0.016 ppm
NIOSH REL C [ppm]	0.1 ppm 15 min.
Methanol (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH STEL (ppm)	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	METHANOL
Biological Exposure Indices (BEI)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl alcohol
OSHA PEL (TWA) [1]	260 mg/m³
OSHA PEL (TWA) [2]	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	6000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	250 mg/m³
NIOSH REL TWA [ppm]	200 ppm
NIOSH REL (STEL)	325 mg/m³
NIOSH REL STEL [ppm]	250 ppm
Remark (NIOSH)	Skin
Water (7732-18-5)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation. Ensure adequate ventilation.

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Protective goggles. Face shield. Chemical resistant apron.

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. nitrile rubber. viton. GIVE GOOD RESISTANCE: tetrafluoroethylene. polyethylene/ethylenevinylalcohol. GIVE LESS RESISTANCE: neoprene. PVC. GIVE POOR RESISTANCE: natural rubber. polyethylene. PVA

Hand protection:

Protective gloves against chemicals (EN 374)

Eye protection:

Protective goggles (EN 166)

Skin and body protection:

Head/neck protection. Corrosion-proof clothing (EN 14605)

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit. High vapour/gas concentration: self-contained breathing apparatus (EN 136 + EN 137)

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colourless
Odor	: Irritating/pungent odour
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 84 °C (Closed cup, 1013 hPa, 55 %)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: 14 hPa (20 °C, 55 %, Aqueous solution)
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.08 g/ml
Molecular mass	: 30.03 g/mol
Solubility	: Soluble in water. Soluble in ethanol. Soluble in methanol. Soluble in ether. Soluble in acetone. Water: soluble Ethanol: soluble Ether: miscible Acetone: miscible
Log Pow	: No data available
Auto-ignition temperature	: 395 °C (Aqueous solution, 1013 hPa, DIN 51794: Self-ignition temperature, T2)

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Decomposition temperature	: No data available
No data availableViscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: 7 – 73 vol % (Pure substance) Lower explosive limit (LEL): 7 vol % (Pure substance) Upper explosive limit (UEL): 73 vol % (Pure substance)
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content	: ≥ 33 %
Other properties	: Clear. Physical properties depending on the concentration. Volatile. Substance has acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids: release of (highly) toxic compounds. Unstabilised product polymerizes.

10.2. Chemical stability

10.3. Possibility of hazardous reactions

Reacts with (strong) oxidizers.

10.4. Conditions to avoid

Incompatible materials. Heat. Sparks. Open flame. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong bases. Strong oxidizers. Strong acids. metals.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Formaldehyde.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Fatal if inhaled.

Formaldehyde, 37% w/w (50-00-0)	
LD50 oral rat	500 mg/kg
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	2000 mg/kg body weight
ATE US (vapors)	0.578 mg/l/4h
Formaldehyde (50-00-0)	
LD50 oral rat	500 mg/kg
LC50 Inhalation - Rat [ppm]	0.579 ppm/4h
ATE US (oral)	500 mg/kg body weight
ATE US (gases)	0.579 ppmV/4h
Methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))
LC50 Inhalation - Rat	128 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

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Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000 mg/kg body weight

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: May cause cancer (Inhalation).

Formaldehyde (50-00-0)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	Known Human Carcinogens

Reproductive toxicity	: Not classified
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STOT-single exposure	: Causes damage to organs (central nervous system, optic nerve, respiratory system).
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Methanol (67-56-1)	
STOT-single exposure	Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal, oral).

STOT-repeated exposure	: Not classified
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Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available

Likely routes of exposure	: Inhalation. Skin and eye contact.
Potential Adverse human health effects and symptoms	: Odour tolerance may develop. Toxic if swallowed. Causes severe skin burns. Toxic in contact with skin. Toxic if inhaled. May cause respiratory irritation. Causes serious eye damage.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Runny nose. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Possible oedema of the upper respiratory tract. Possible laryngeal spasm/oedema. Respiratory difficulties. Risk of lung edema.
Symptoms/effects after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/effects after eye contact	: Corrosion of the eye tissue.
Symptoms/effects after ingestion	: Nausea. Vomiting. Diarrhoea. AFTER ABSORPTION OF LARGE QUANTITIES: Central nervous system depression. Dizziness. Blood in vomit. Blood in stool. Shock. Disturbances of consciousness. Change in the blood composition. Change in urine composition. Urine discolouration.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Skin rash/inflammation. Coughing. Possible inflammation of the respiratory tract. Respiratory difficulties.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Toxic to crustacea. Toxic to fishes. Toxic to algae. pH shift.

Formaldehyde, 37% w/w (50-00-0)	
EC50 Daphnia 2	2 mg/l

Methanol (67-56-1)	
LC50 fish 1	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)

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12.2. Persistence and degradability

Formaldehyde, 37% w/w (50-00-0)	
Persistence and degradability	Readily biodegradable in water.
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
Water (7732-18-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Formaldehyde, 37% w/w (50-00-0)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Formaldehyde (50-00-0)	
Log Pow	0.35
Methanol (67-56-1)	
BCF fish 1	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Log Pow	-0.77 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Water (7732-18-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Formaldehyde, 37% w/w (50-00-0)	
Ecology - soil	Contains component(s) with potential for mobility in the soil. Toxic to flora.
Methanol (67-56-1)	
Surface tension	No data available in the literature
Log Koc	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste.
Additional information	: Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1198 Formaldehyde solutions, flammable, 3, III

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UN-No.(DOT) : UN1198
Proper Shipping Name (DOT) : Formaldehyde solutions, flammable
Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 3 - Flammable liquid
8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 4b;150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"
Other information : No supplementary information available.

SECTION 15: Regulatory information

15.1. US Federal regulations

Formaldehyde, 37% w/w (50-00-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists)

100 lb

SARA Section 311/312 Hazard Classes

Physical hazard - Flammable (gases, aerosols, liquids, or solids)
Health hazard - Acute toxicity (any route of exposure)
Health hazard - Skin corrosion or Irritation
Health hazard - Serious eye damage or eye irritation
Health hazard - Carcinogenicity
Health hazard - Specific target organ toxicity (single or repeated exposure)

All components of this product are listed as Active, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Formaldehyde	CAS-No. 50-00-0	37%
Methanol	CAS-No. 67-56-1	10 – 15%
Water	CAS-No. 7732-18-5	48 – 53%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Formaldehyde	CAS-No. 50-00-0	37%
Methanol	CAS-No. 67-56-1	10 – 15%

Formaldehyde, 37% w/w

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Formaldehyde (50-00-0)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Methanol (67-56-1)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Acute toxicity (any route of exposure) Health hazard - Specific target organ toxicity (single or repeated exposure)

15.2. International regulations

CANADA

Formaldehyde, 37% w/w (50-00-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Methanol (67-56-1)	
Listed on the Canadian DSL (Domestic Substances List)	
Water (7732-18-5)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

No additional information available

National regulations

Formaldehyde (50-00-0)	
Listed on IARC (International Agency for Research on Cancer)	
Listed as carcinogen on NTP (National Toxicology Program)	

15.3. US State regulations

Formaldehyde, 37% w/w (50-00-0)	
U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
No significant risk level (NSRL)	40 µg/day gas

 **WARNING:** This product can expose you to Formaldehyde, which is known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 09/07/2021
Other information : None.

Formaldehyde, 37% w/w

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Full text of H- and EUH-statements: see section 16:

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H331	Toxic if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer
H370	Causes damage to organs
H401	Toxic to aquatic life

NFPA health hazard

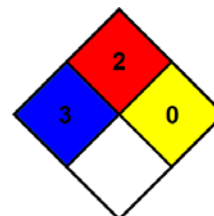
: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard

: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: H
H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US LabChem

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