



#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Laxative effects. Abdominal pain. Diarrhea.
<b>Indication of immediate medical attention and special treatment needed</b>	<p>IN CASE OF ACCIDENTAL SELF-INJECTION OF OIL EMULSION VACCINES, GET MEDICAL ATTENTION IMMEDIATELY.</p> <p>The victim should be immediately referred to a surgeon experienced in hand injuries. DO NOT DELAY TREATMENT.</p> <p>There is some direct injury to tissue at the time of injection but within 24 hours, there is usually an inflammatory response resulting in significant swelling and increasing pain. The use of an anti-inflammatory drug, such as Cortisone, should be considered.</p>
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

#### 8. Exposure controls/personal protection

##### Occupational exposure limits

##### US. ACGIH Threshold Limit Values Components

Components	Type	Value
Formalin (CAS 50-00-0)	Ceiling	0.3 ppm

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

Components	Type	Value
Formalin (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Formalin (CAS 50-00-0)	Ceiling	0.1 ppm
	TWA	0.016 ppm

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	If contact is likely, safety glasses with side shields are recommended.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	None required where adequate ventilation conditions exist.
<b>Thermal hazards</b>	Not available.
<b>General hygiene considerations</b>	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.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Opaque
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not available.
<b>pH</b>	6.6 - 7
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	> 212 °F (> 100 °C)
<b>Flash point</b>	> 300.0 °F (> 148.9 °C) Cleveland Open Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 1 mm Hg
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.

<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Specific gravity</b>	0.88 - 0.96

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on toxicological effects

<b>Acute toxicity</b>	Due to lack of data the classification is not possible.
<b>Skin corrosion/irritation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Serious eye damage/eye irritation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Respiratory or skin sensitization</b>	
<b>ACGIH sensitization</b>	
Formalin (CAS 50-00-0)	Sensitizer.
<b>Respiratory sensitization</b>	Due to partial or complete lack of data the classification is not possible.
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Based on available data, the classification criteria are not met.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Formalin (CAS 50-00-0) 1 Carcinogenic to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formalin (CAS 50-00-0) Cancer

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

Formalin (CAS 50-00-0) Known To Be Human Carcinogen.

<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.

## 12. Ecological information

<b>Ecotoxicity</b>	No ecotoxicity data noted for the ingredient(s).
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.
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## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

## 15. Regulatory information

### US federal regulations

One or more components are not listed on TSCA.  
This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Formalin (CAS 50-00-0)

Listed.

#### SARA 304 Emergency release notification

Formalin (CAS 50-00-0)

100 LBS

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formalin (CAS 50-00-0)

Cancer  
Skin sensitization  
Respiratory sensitization  
Eye irritation  
Skin irritation  
respiratory tract irritation  
Acute toxicity  
Flammability

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

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

Formalin (CAS 50-00-0)

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

Formalin (CAS 50-00-0)

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

#### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Formalin (CAS 50-00-0)

#### US. Massachusetts RTK - Substance List

Formalin (CAS 50-00-0)

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

Formalin (CAS 50-00-0)

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

Formalin (CAS 50-00-0)

**US. Rhode Island RTK**

Formalin (CAS 50-00-0)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Formalin (CAS 50-00-0)

Listed: January 1, 1988

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision****Issue date** 07-23-2015**Version #** 01**Lilly Lab Code** Health: 0  
Fire: 0  
Reactivity: 0**Disclaimer** As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

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