



# HI-VALLEY CHEMICAL

## LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Formalin 10%

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Formalin 10%  
**SDS Number:** R-067  
**Revision Date:** 6/1/2016  
**Version:** 1  
**Supplier Details:** High Valley Products, Inc.  
1134 West 850 North  
Centerville, Utah 84014  
**Emergency:** PERS: 800-633-8253  
**Phone:** 801-295-9591  
**Email:** sales@hvchemical.com  
**Web:** www.hvchemical.com

### 2 HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

##### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

- Physical, Flammable Liquids, 4
- Health, Acute toxicity, 4 Oral
- Health, Skin corrosion/irritation, 2
- Health, Respiratory or skin sensitization, 1 Skin
- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Germ cell mutagenicity, 2
- Health, Carcinogenicity, 1 A
- Health, Specific target organ toxicity - Single exposure, 1

#### GHS Label Elements, Including Precautionary Statements

**GHS Signal Word:** **DANGER**

**GHS Hazard Pictograms:**



#### GHS Hazard Statements:

- H227 - Combustible liquid
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H341 - Suspected of causing genetic defects
- H350 - May cause cancer
- H370 - Causes damage to organs

#### GHS Precautionary Statements:

- 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
- 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.  
 P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P310 - Immediately call a POISON CENTER or doctor/physician.  
 P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.  
 P370+378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
 P403+233 - Store in a well ventilated place. Keep container tightly closed.  
 P403+235 - Store in a well ventilated place. Keep cool.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container to \_

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

**Ingredients:**

Cas#	%	Chemical Name
50-00-0	10%	Formaldehyde
67-56-1	<1%	Methanol
7558-80-7	<1%	Monosodium Phosphate

**4 FIRST AID MEASURES**

**Inhalation:** If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.  
**Skin Contact:** Remove contaminated clothing immediately. Wash with soap and water. Consult a physician.  
**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Consult a physician.  
**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5 FIRE FIGHTING MEASURES**

Suitable extinguishing media  
 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture  
 Carbon oxides

Advice for firefighters  
 Wear self-contained breathing apparatus for firefighting if necessary.

Further information  
 No data

**6 ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:**  
 Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors accumulate in low areas.

**Environmental precautions:**  
 Do not let product enter drains.

**Methods and materials for containment and cleaning up:**  
 Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**Handling Precautions:** Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing.  
**Storage Requirements:** Keep container tightly closed. Store in cool/dry well ventilated area.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal Protective Equipment:

Formaldehyde (50-00-0) [ $<4\%$ ]

Personal protective equipment

Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min Material tested: Camatril (KCL 730 / Aldrich Z677442, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methanol (67-56-1) [ $<1\%$ ]

Personal protective equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested: Butoject (KCL 897 / Aldrich Z677647, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 31 min Material tested: Camatril (KCL 730 / Aldrich Z677442, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## Exposure Guidelines

Formaldehyde (50-00-0) [<4%]

Components with workplace control parameters

C 0.3 ppm USA. ACGIH Threshold Limit Values (TLV)

Eye & Upper Respiratory Tract irritation  
Suspected human carcinogen  
Sensitizer

TWA 0.016 ppm USA. NIOSH Recommended Exposure Limits

Potential Occupational Carcinogen  
See Appendix A

C 0.1 ppm USA. NIOSH Recommended Exposure Limits

Potential Occupational Carcinogen  
See Appendix A  
15 minute ceiling value  
Substance listed; for more information see OSHA document 1910.1048  
Substance listed; for more information see OSHA document 1910.1048  
See 1910.1048

PEL 0.75 ppm OSHA Specifically Regulated Chemicals/Carcinogens

1910.1048  
This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde  
OSHA specifically regulated carcinogen

STEL 2 ppm OSHA Specifically Regulated Chemicals/Carcinogens

1910.1048  
This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde  
OSHA specifically regulated carcinogen

TWA 0.016 ppm USA. NIOSH Recommended Exposure Limits

Potential Occupational Carcinogen  
Formalin is an aqueous solution that is 37% formaldehyde by weight; inhibited solutions usually contain 6- 12% methyl alcohol.  
Also see specific listings for Formaldehyde and Methyl alcohol.  
See Appendix A

C 0.1 ppm USA. NIOSH Recommended

## Exposure Limits

### Potential Occupational Carcinogen

Formalin is an aqueous solution that is 37% formaldehyde by weight; inhibited solutions usually contain 6- 12% methyl alcohol. Also see specific listings for Formaldehyde and Methyl alcohol.

See Appendix A

15 minute ceiling value

Methanol (67-56-1) [<1%]

Components with workplace control parameters

TWA 200 ppm USA. ACGIH Threshold Limit Values (TLV)

Headache Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI section) Danger of cutaneous absorption

STEL 250 ppm USA. ACGIH Threshold Limit Values (TLV)

Headache Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI section) Danger of cutaneous absorption

TWA 200 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -  
260 mg/m3 1910.1000

Skin notation

STEL 250 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -  
325 mg/m3 1910.1000

Skin notation

TWA 200 ppm USA. Occupational Exposure Limits (OSHA) - Table Z- 1  
260 mg/m3 Limits for Air Contaminants

The value in mg/m3 is approximate.

TWA 200 ppm USA. NIOSH Recommended Exposure Limits  
260 mg/m3

Potential for dermal absorption

ST 250 ppm USA. NIOSH Recommended Exposure Limits  
325 mg/m3

Potential for dermal absorption

## 9

## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless.
<b>Physical State:</b>	Liquid
<b>Odor:</b>	Pungent
<b>Odor Threshold:</b>	No data available
<b>Solubility:</b>	No data available
<b>Spec Grav./Density:</b>	1.016
<b>Viscosity:</b>	No data available
<b>Boiling Point:</b>	No data available
<b>Freezing/Melting Pt.:</b>	No data available
<b>Flash Point:</b>	No data available
<b>Partition Coefficient:</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>pH:</b>	No data available

**Evap. Rate:** No data available  
**Auto-Ignition Temp:** No data available  
**Decomp Temp:** No data available  
**UFL/LFL:** No data available

## 10 STABILITY AND REACTIVITY

**Reactivity:** No data available  
**Chemical Stability:** Stable under recommended storage conditions.  
**Conditions to Avoid:** Heat, flames and sparks.

## 11 TOXICOLOGICAL INFORMATION

Formaldehyde (50-00-0) [10%]

Information on toxicological effects

Acute toxicity: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: 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)

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: LP8925000

Liver - Irregularities - Based on Human Evidence

Central nervous system - Breathing difficulties - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence (Formaldehyde)

Stomach - Irregularities - Based on Human Evidence (Methanol)

Methanol (67-56-1) [<1%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LDLO Oral - Human - 143 mg/kg Remarks: Lungs, Thorax, or Respiration:Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

LD50 Oral - rat - 1,187 - 2,769 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 4 h - 128.2 mg/l

LC50 Inhalation - rat - 6 h - 87.6 mg/l

Dermal LD50 LD50 Dermal - rabbit - 17,100 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - rabbit - No skin irritation

Serious eye damage/eye irritation: Eyes - rabbit - No eye irritation

Respiratory or skin sensitisation: Maximisation Test - guinea pig - OECD Test Guideline 406 - Does not cause skin sensitisation.

Germ cell mutagenicity: Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative Genotoxicity in vitro - in vitro assay - fibroblast - negative Mutation in mammalian somatic cells.

Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Fertility classification not possible from current data.

Teratogenicity: Damage to fetus not classifiable

Specific target organ toxicity - single exposure (Globally Harmonized System):  
Causes damage to organs.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):  
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard: No aspiration toxicity classification

Potential health effects: Inhalation Toxic if inhaled. May cause respiratory tract irritation. Ingestion Toxic if swallowed. Skin Toxic if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Methyl alcohol may be fatal or cause blindness if swallowed. Effects due to ingestion may include:, Headache, Dizziness, Drowsiness, metabolic acidosis, Coma, Seizures. Symptoms may be delayed., Damage of the:, Liver, Kidney

Synergistic effects: no data available

Additional Information:

RTECS: PC1400000

Formaldehyde (50-00-0) [10%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

Methanol (67-56-1) [<1%]

Information on ecological effects

Toxicity:

Toxicity to fish mortality LC50 - Lepomis macrochirus (Bluegill) - 15,400.0 mg/l - 96 h.

NOEC - Oryzias latipes - 7,900 mg/l - 200 h

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - > 10,000.00 mg/l - 48 h. and other aquatic invertebrates

Toxicity to algae Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 22,000.0 mg/l - 96 h

Persistence and degradability: Biodegradability aerobic Result: 72 % - rapidly biodegradable

Bioaccumulative potential: Bioaccumulation Cyprinus carpio (Carp) - 72 d at 20 °C Bioconcentration factor (BCF): 1.0

Mobility in soil: Will not adsorb on soil.

PBT and vPvB assessment: Results of PBT This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This assessment substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Other adverse effects: Biochemical Oxygen 600 - 1,120 mg/g Demand (BOD)

Chemical Oxygen 1,420 mg/g Demand (COD)

Additional ecological Avoid release to the environment. information

## 13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

## 14 TRANSPORT INFORMATION

UN3082, Environmentally hazardous substances, liquid, n.o.s., 9, PGIII

## 15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

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Formaldehyde (50-00-0) [10%] CERCLA, CSWHS, EHS302, EPCRAWPC, HAP, MASS, NJEHS, NJHS, NRC, OSHAHTS, OSHAPSM, PA, PROP65, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

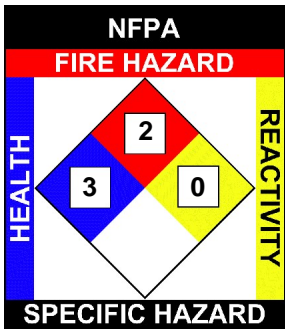


Regulatory CODE Descriptions

- 
- RQ = Reportable Quantity
  - CERCLA = Superfund clean up substance
  - CSWHS = Clean Water Act Hazardous substances
  - EHS302 = Extremely Hazardous Substance
  - EPCRAWPC = EPCRA Water Priority Chemicals
  - HAP = Hazardous Air Pollutants
  - MASS = MA Massachusetts Hazardous Substances List
  - NJEHS = NJ Extraordinarily Hazardous Substances
  - NJHS = NJ Right-to-Know Hazardous Substances
  - NRC = Nationally Recognized Carcinogens
  - OSHAHTS = OSHA Hazardous and Toxic Substances
  - OSHAPSM = OSHA Chemicals Requiring process safety management
  - PA = PA Right-To-Know List of Hazardous Substances
  - PROP65 = CA Prop 65
  - SARA313 = SARA 313 Title III Toxic Chemicals
  - TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
  - TSCA = Toxic Substances Control Act
  - TXAIR = TX Air Contaminants with Health Effects Screening Level
  - TXHWL = TX Hazardous Waste List

**16 OTHER INFORMATION**

NFPA: Health = 3, Fire = 2, Reactivity = 0, Specific Hazard = n/a  
 HMIS III: Health = 3(Chronic), Fire = 2, Physical Hazard = 0



HMIS	
HEALTH	<input checked="" type="checkbox"/> 3
FLAMMABILITY	2
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

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