



Material Safety Data Sheet

Formaldehyde - Sodium Carbonate Solution

Section 1 - Chemical Product and Company Identification

MSDS Name:

Formaldehyde - Sodium Carbonate Solution

Catalog Numbers:

LC14680

Synonyms:**Company Identification:**

LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
50-00-0	Formaldehyde	16.5
67-56-1	Methanol	6
497-19-8	Sodium carbonate	0.03

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, colorless solution

Warning! Contains formaldehyde which can cause cancer. May cause eye, skin, and respiratory tract irritation. Harmful if inhaled, swallowed, or absorbed through the skin. May cause blindness if swallowed. May cause sensitization by inhalation and by skin contact. May cause central nervous system depression. May cause liver and kidney damage.

Target Organs: Kidneys, central nervous system, liver, eyes, skin, respiratory system.

Potential Health Effects

Eye:

Eye contact may result in irritation, tearing; heavy exposure can result in burns and severe injury with corneal damage.

Skin:

May cause irritation or sensitization. Methanol may be absorbed by the skin.



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Ingestion:

May be fatal or cause blindness if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation:

May cause central nervous system effects. Causes respiratory tract irritation and possible sensitization, resulting in asthmatic attacks.

Chronic:

May cause liver and kidney damage. Formaldehyde-may result in nasal carcinoma, cirrhosis of the liver, chronic heart disease, respiratory sensitization, skin hardening and cracking, dermatitis, conjunctivitis. Methanol -- blurred or painful vision, conjunctivitis; possible mutagenic or reproductive effects.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Do not allow victim to rub eyes or keep eyes closed. Get medical aid at once.

Skin:

Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Get medical aid at once. Keep victim warm, at rest. If victim is conscious, give 2-4 glasses of water. Do not induce vomiting.

Inhalation:

Get medical aid immediately. Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or regular foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.



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NFPA Rating:

(Estimated) H:2; F:1; I:0

Explosion Limits:

Lower: n/av Upper: n/av

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Remove all sources of ignition. Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in suitable container (plastic or glass) for later disposal. Isolate and ventilate spill area. Keep out of sewers/drains.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Keep away from heat, sparks, and flame. Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. See 29CFR 1910.1048 for regulatory requirements pertaining to all occupational exposures to formaldehyde, i.e., from formaldehyde gas, its solutions, and materials that release formaldehyde.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Formaldehyde	0.3 ppm Ceiling	0.016 ppm TWA; NIOSH Potential Occupational Carcinogen – see Appendix A 20 ppm IDLH	0.75 ppm TWA ; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential Carcinogen – see 29 CFR 1910.1048
Methyl alcohol	200 ppm TWA; 250 ppm STEL; skin - potential for cutaneous absorption	200 ppm TWA; 260 mg/m ³ TWA; 6000 ppm IDLH	200 ppm TWA; 260 mg/m ³ TWA
Sodium carbonate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs:

Formaldehyde: 3 ppm TWA (unless specified in 1910.1048)



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Methyl alcohol: 200 ppm TWA; 260 mg/m³ TWA

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Colorless
Odor:	Pungent odor - irritating odor
pH:	8-9
Vapor Pressure:	Not available.
Vapor Density:	> 1.0
Evaporation Rate:	Not available.
Viscosity:	Not available.
Boiling Point:	Not available.
Freezing/Melting Point:	Not available.
Decomposition Temperature:	Not available.
Solubility in water:	Soluble.
Specific Gravity/Density:	1.00 – 1.05
Molecular Formula:	Not applicable.
Molecular Weight:	Not applicable.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures up to boiling point.

Conditions to Avoid:

Incompatible materials, exposure to heat or flames.

Incompatibilities with Other Materials:

Strong oxidizing agents, reacts with hydrochloric acid to form bis(chloromethyl ether), a potent carcinogen.

Hazardous Decomposition Products:

Oxides of carbon.

Hazardous Polymerization:

Has not been reported



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Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 50-00-0: LP8925000.

CAS# 67-56-1: PC1400000.

CAS# 497-19-8: VZ4050000.

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg

CAS# 50-00-0:

Inhalation, mouse: LC50 = 505 mg/m³/2H

Inhalation, rat: LC50 = 203 mg/m³

Oral, mouse: LD50 = 42 mg/kg

Oral, rat: LD50 = 100 mg/kg

Draize test, rabbit, skin: 2 mg/24H Severe

CAS# 67-56-1:

Inhalation, rat: LC50 = 64000 ppm/4H

Oral, mouse: LD50 = 7300 mg/kg

Oral, rabbit: LD50 = 14200 mg/kg

Oral, rat: LD50 = 5628 mg/kg

Skin, rabbit: LD50 = 15800 mg/kg

Draize test, rabbit, skin: 20mg/24H Moderate

CAS# 497-18-9:

Inhalation, mouse: LC50 = 1200 mg/m³/2H

Inhalation, rat: LC50 = 2300 mg/m³/2H

Oral, mouse: LD50 = 6600 mg/kg

Oral, rat: LD50 = 4090 mg/kg

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 50-00-0

ACGIH: A2 - suspected human carcinogen

California: carcinogen; initial date 1/1/88

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 1 carcinogen

CAS# 67-56-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 497-18-9: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

In June 2004 an expert IARC group determined that there is now sufficient evidence that formaldehyde causes nasopharyngeal cancer in humans, a rare cancer in developed countries.

Teratogenicity:

Formaldehyde effects on Newborn: behavioral, ihl-rat TCLo=50 ug/m³/4H; biochemical/metabolic and reduced weight gain, ihl-rat TCLo=12 ug/m³/24H. Embryo or Fetus: cytological changes, ihl-rat TCLo=1mg/m³/24H; stunted fetus and death, ipr-mouse TDLo=240mg/kg. Specific Developmental Abnormalities: craniofacial and musculoskeletal, ipr-mouse TDLo=240 mg/kg.



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Reproductive:

Formaldehyde effects on fertility: male index, itt-rat TDLo=400 mg/kg; post- implantation mortality, ims-mouse TDLo=259 mg/kg. Paternal Effects:spermatogenesis, orl-rat TDLo=200 mg/kg; testes/sperm duct/epididymis, ipr-rat TDLo=80 mg/kg.

Mutagenicity:

Formaldehyde DNA Damage: human fibroblast 100 umol/L DNA Inhibition: human cell types 210 umol/L Unscheduled DNA Synthesis: rat cell types 50 umol/L Gene Mutation in Mammalian Cells:human lymphocyte130 umol/L.

Neurotoxicity:

No information available.

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal**TSCA:**

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 50-00-0 is listed on the TSCA Inventory.

CAS# 67-56-1 is listed on the TSCA Inventory.

CAS# 497-18-9 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 50-00-0: final RQ = 100 pounds (45.4 kg)

CAS# 67-56-1: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313:

This material contains Formaldehyde (CAS# 50-00-0, 16.5%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Methyl alcohol (CAS# 67-56-1, 6%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous:

CAS# 50-00-0 is considered highly hazardous by OSHA.



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US State

State Right to Know:

Formaldehyde can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Methyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations:

WARNING: This product contains Formaldehyde, a chemical known to the state of California to cause cancer.

European/International Regulations

Canadian DSL/NDL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 50-00-0 is listed on Canada's DSL List.

CAS# 67-56-1 is listed on Canada's DSL List.

CAS# 497-18-9 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 50-00-0 is listed on Canada's Ingredient Disclosure List.

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.

CAS# 497-18-9 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 14, 2007

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