

Safety Data Sheet  
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name</b>	Formaldehyde Solution, 1:9 Aqueous
<b>NCL Catalog Number</b>	<b>F-56</b>
<b>Product Description</b>	Laboratory chemical
<b>Supplier</b>	
NCL of Wisconsin, Inc.	<b>Telephone:</b> 1-800-648-7836 <b>Fax:</b> 715-449-2454
P.O. Box 8	<b>Emergency Contact:</b> 1-800-424-9300 (Chemtrec)
Biramwood, WI 54414	<b>Email:</b> <a href="mailto:nclabs@nclabs.com">nclabs@nclabs.com</a>

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification**

Skin Irritation	Category 2
Serious Eye Damage	Category 1
Skin Sensitization	Category 1
Carcinogenicity	Category 1B
Aquatic Acute	Category 3



**Signal Word**

Danger

**Hazard Statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H350	May cause cancer (inhalation).
H402	Harmful to aquatic life.

**Precautionary Statements**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing mist/vapors/spray.
P264	Wash exposed skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to comply with local, state and federal regulations.

**Other Hazards Not Contributing to the Classification**

None under normal conditions.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Identity** Not applicable  
**Common Name** Not applicable

**Mixture**

Name	CAS #	Approximate %
Water	7732-18-5	95
Formaldehyde	50-00-0	4
Methanol	67-56-1	1

**SECTION 4: FIRST AID MEASURES**

**Description of First Aid Measures**

**General First Aid Measures** Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.

**If Inhaled** Remove person to fresh air and keep comfortable for breathing. Allow victim to rest. Immediately call a POISON CENTER or doctor.

**In Case of Skin Contact** Remove all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.

**In Case of Eye Contact** Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**If Swallowed** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

**Most Important Symptoms/Effects Acute and Delayed**

**Symptoms/Injuries** May cause cancer (Inhalation).

**After Inhalation** May cause an allergic skin reaction.

**After Skin Contact** Causes skin irritation.

**After Eye Contact** Causes serious eye damage.

**Indication of Immediate Medical Attention and Special Treatment Needed**

Seek medical attention if exposed.

**SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media** Foam. Dry powder. Sand. Carbon dioxide. Water spray.

**Unsuitable Extinguishing Media** Do not use high pressure water stream.

**Special Hazards Arising from the Chemical**

Thermal decomposition generates corrosive vapors

**Special Protective Actions for Fire-Fighters**

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray. Exercise caution when fighting chemical fire.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions** Use personal protective equipment, combined gas/dust mask with filter type A/P3 (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources. Ventilate area.

**Environmental Precautions** Prevent entry to surface and ground waters.

**Methods and Materials for Containment and Cleaning Up** Clean up spill with inert absorbent material. Collect spillage. Store away from other materials. Ensure compliance with local, state and federal regulations.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling**

Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

**Conditions for Safe Storage  
Including any Incompatibilities**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from strong bases, strong acids and strong oxidizers.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control Parameters

<b>Formaldehyde, 37% w/w (50-00-0)</b>		
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	0.37 mg/m <sup>3</sup>
USA ACGIH	ACGIH Ceiling (ppm)	0.3 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	0.75 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	2 ppm

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures

Avoid all unnecessary exposure.

**Eye/Face Protection**

Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

**Skin Protection**

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

**Respiratory Protection**

Wear appropriate mask.

**Other Information**

Do not eat, drink, or smoke when using this product.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Characteristic
<b>Odor Threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Melting Point/Freezing Point</b>	Not determined
<b>Initial Boiling Point and Boiling Range</b>	Not determined
<b>Flash Point</b>	Not determined
<b>Evaporation Rate</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not determined
<b>Upper/Lower Flammability/Explosive Limits</b>	Not determined
<b>Vapor Pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	1.1
<b>Solubility</b>	Soluble in water
<b>Partition Coefficient: n-octanol/water</b>	Not determined
<b>Auto-Ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Viscosity</b>	Not determined

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	Thermal decomposition generates corrosive vapors.
<b>Chemical Stability</b>	Stable under ordinary conditions of use and storage.
<b>Possibility of Hazardous Reactions</b>	Reacts violently with some bases with the evolution of heat.
<b>Conditions to Avoid</b>	Extremely high or low temperatures. Heat and sunlight can contribute to instability.
<b>Incompatible Materials</b>	Strong acids, strong bases, and strong oxidizers.
<b>Hazardous Decomposition Products</b>	When heated to decomposition, can emit toxic gases, carbon monoxide and carbon dioxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Acute Toxicity</b>	Not classified
<b>Formaldehyde, 37% w/w (50-00-0)</b>	
<b>LD50 oral rat</b>	500 mg/kg
<b>LD50 dermal rabbit</b>	5010 mg/kg
<b>Water (7732-18-5)</b>	
<b>LD50 oral rat</b>	≥90000 mg/kg
<b>Skin Corrosion/Irritation</b>	Causes skin irritation.
<b>Serious Eye Damage/Irritation</b>	Causes serious eye damage.
<b>Respiratory or Skin Sensitization</b>	May cause an allergic skin reaction.
<b>Germ Cell Mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	May cause cancer (Inhalation).
<b>Formaldehyde, 37% w/w (50-00-0)</b>	
<b>IARC group</b>	1 – Carcinogenic to humans
<b>Reproductive Toxicity</b>	Not classified
<b>Specific Target Organ Toxicity (Single Exposure)</b>	Not classified
<b>Specific Target Organ Toxicity (Repeated Exposure)</b>	Not classified
<b>Aspiration Hazard</b>	Not classified
<b>Potential Adverse Human Health Effects and Symptoms</b>	No data available
<b>Symptoms/Injuries After Inhalation</b>	Possible inflammation of the respiratory tract.
<b>Symptoms/Injuries After Skin Contact</b>	Caustic burns/corrosion of the skin.
<b>Symptoms/Injuries After Eye Contact</b>	Causes serious eye damage.
<b>Symptoms/Injuries After Ingestion</b>	Nausea and vomiting.
<b>Chronic Symptoms</b>	Discoloration of teeth.
<b>Other Information</b>	Not available

## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity</b>	Harmful to aquatic life.
<b>Formaldehyde, 37% (50-00-0)</b>	
<b>LC50 fishes 1</b>	41 mg/l (96 h; Brachydanio rerio; Pure substance)
<b>EC50 Daphnia 1</b>	14.7 mg/l (24 h; Daphnia magna; Pure substance)
<b>LC50 fish 2</b>	62-109 mg/l (96 h; Salmo gairdneri, Oncorhynchus mykiss; Pure substance)
<b>EC50 Daphnia 2</b>	2 mg/l
<b>TLM fish 1</b>	50-200, (96 h; Poecilia reticulata; Pure substance)
<b>TLM fish 2</b>	10-100; Pisces; Pure substance
<b>TLM other aquatic organisms 1</b>	10-100, 96 h
<b>Threshold limit algae 1</b>	2.5 mg/l (192 h; Scenedesmus quadricauda; Pure substance)
<b>Threshold limit algae 2</b>	0.39 mg/l (192 h; Microcystis aeruginosa; Solution <50%)
<b>Persistence and Degradability</b>	Readily biodegradable in water. Biodegradable in soil: no data available. No test data on mobility of the components of the mixture available. Photodegradation in air.

<b>Biochemical Oxygen Demand (BOD)</b>	0.64 g O <sub>2</sub> /g substance
<b>Chemical Oxygen Demand (COD)</b>	1.06 g O <sub>2</sub> /g substance
<b>ThOD</b>	1.068 g O <sub>2</sub> /g substance
<b>BOD (% of ThOD)</b>	0.6% ThOD
<b>Bioaccumulative Potential</b>	Not applicable
<b>Log Pow</b>	-0.78-0.0
<b>Mobility in Soil</b>	Toxic in flora
<b>Other Adverse Effects</b>	Not applicable

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Methods of Disposal**

<b>Disposal Recommendations</b>	Dispose of contents/containers in accordance with local, state and federal regulations.
<b>Other Information</b>	Avoid release to the surrounding environment.

**SECTION 14: TRANSPORT INFORMATION**

<b>UN Number</b>	2209
<b>UN Shipping Name</b>	Formaldehyde solution, flammable
<b>Transport Hazard Class(es)</b>	3 - Flammable
<b>Packing Group</b>	III
<b>Environmental Hazards</b>	Not applicable
<b>Transport in Bulk</b>	Not applicable
<b>Other Precautions</b>	Not applicable

**SECTION 15: REGULATORY INFORMATION**

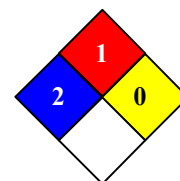
<b>Formaldehyde, 37% w/w (50-00-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable Quantity)	100 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 312 - Emission reporting	0.1%
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

**SECTION 16: OTHER INFORMATION**

Revision Date: 04/07/2015

**NFPA Hazards**

<b>Health Hazard</b>	2: Intense or continued exposure could cause temporary incapacitation or possible residual injury.
<b>Fire Hazard</b>	1: Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur.
<b>Reactivity/Instability</b>	0: Normally stable, even under fire exposure conditions.



**HMIS III Rating**

<b>Health</b>	2: Temporary or minor injury may occur.
<b>Flammability</b>	1: Materials that must be preheated before ignition will occur.
<b>Physical Hazard</b>	0: Materials that are normally stable, even under fire conditions, and will not react with ater.
<b>Personal Protection</b>	H

F-56	
Health	2
Flammability	1
Physical Hazard	0
Personal Protection	H

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**END OF SAFETY DATA SHEET**