

# SDS Safety Data Sheet



## Neutral Buffered Formalin Concentrate (4+1)

Product Code: RS4253

Revision Date: 2-27-13

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### 1 PRODUCT AND COMPANY IDENTIFICATION

Manufactured in the USA for

Avantik  
19 Chapin Road - Building C  
Pine Brook, NJ 07058

Phone: (800) 783-9424  
Fax: (973) 232-0076  
Web: [www.avantik-us.com](http://www.avantik-us.com)

**24-Hour Emergency Telephone**  
Call CHEMTREC (800) 424-9300  
Contact CHEMTREC only in the event of a HAZMAT incident, such as spill, leak, fire, exposure or accident.

**Product Name:** Neutral Buffered Formalin Concentrate (4+1)  
**Revision Date:** 2/27/2013  
**Product Code:** RS4253  
**Product Use:** For preparation of 10% Buffered Formalin Fixative

### 2 HAZARDS IDENTIFICATION

**Target Organs:** Respiratory system, Eyes, Skin, Central nervous system (CNS), Optic nerve, Liver, Kidney  
**Inhalation:** Harmful by inhalation. Irritant. May affect CNS.  
**Skin Contact:** Irritant. May cause allergic reaction.  
**Eye Contact:** Irritant  
**Ingestion:** Harmful if swallowed. Can cause GI irritation, nausea, vomiting. May affect CNS.



#### GHS Classifications:



Physical, Flammable Liquids, 4  
Health, Acute toxicity, 4 Oral  
Health, Acute toxicity, 4 Dermal  
Health, Acute toxicity, 4 Inhalation  
Health, Carcinogenicity, 1  
Health, Reproductive toxicity, 2  
Health, Respiratory or skin sensitization, 1 Respiratory  
Health, Respiratory or skin sensitization, 1 Skin  
Health, Serious Eye Damage/Eye Irritation, 2 B  
Health, Skin corrosion/irritation, 2  
Health, Specific target organ toxicity - Repeated exposure, 2  
**GHS Phrases:**  
Warning, Combustible liquid  
Warning, Harmful if swallowed  
Warning, Harmful in contact with skin  
Warning, Harmful if inhaled

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### GHS Precautionary Statements:

Danger, May cause cancer  
 Warning, Suspected of damaging fertility or the unborn child  
 Danger, May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 Warning, May cause an allergic skin reaction  
 Warning, Causes serious eye irritation  
 Warning, Causes skin irritation  
 Warning, May cause damage to organs through prolonged or repeated exposure  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P261 - Avoid breathing vapors/spray.  
 P271 - Use only in a well-ventilated area.  
 P233 - Keep container tightly closed.  
 P264 - Wash thoroughly after handling.  
 P273 - Avoid release to the environment.  
 P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
 P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P302+350 - IF ON SKIN: Gently wash with soap and water.  
 P362 - Take off contaminated clothing and wash before reuse.  
 P332+313 - If skin irritation occurs: Get medical advice/attention.

## 3

### COMPOSITION/INFORMATION ON INGREDIENTS

Cas #	Percentage	Chemical Name
50-00-0	18-21%	Formaldehyde
67-56-1	5-6%	Methanol

This list includes only hazardous components.

## 4

### FIRST AID MEASURES

**Inhalation:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or physician.

**Skin Contact:** Remove/Take off immediately all contaminated clothing. Wash with soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician.

**Ingestion:** Immediately call a POISON CENTER or doctor/physician.

## 5

### FIRE FIGHTING MEASURES

**Flammability:** No data available  
**Flash Point:** 73.3C  
**Flash Point Method:** No information available

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**Burning Rate:** No information available  
**Autoignition Temp:** No information available  
**LEL:** No data available  
**UEL:** No data available

P370+P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or CO2 for extinction.. Firefighters should wear NIOSH approved self-contained positive pressure breathing apparatus and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA Hazard Identification:** Health: 3 Flammability: 2 Reactivity: 0 Special Hazards: n/a

NFPA Hazard Identification is not intended to address occupational exposure occurring under normal conditions of use. It only addresses hazards presented by Fire, Spill or Similar Emergencies. NFPA 704 2007 ed. 1.1 and 1.3.2(1).

## 6 ACCIDENTAL RELEASE MEASURES

Ventilate area and keep unnecessary personnel away. Wear personal protective clothing and suitable breathing apparatus. Eliminate sources of ignition. Keep spill out of drains. Absorb with inert material and containerize for disposal. Clean up residual spill with water

## 7 HANDLING AND STORAGE

**Handling Precautions:** P271 P280 P260 P210 Use only in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe vapors. Keep away from heat/open flames. No smoking  
**Storage Requirements:** P404+411+233 Store in a well ventilated place at temperatures not exceeding 25C. Keep container tightly closed.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

**Personal Protective Equip:** P280 P271 Wear protective gloves/protective clothing/eye protection/face protection. Use only in a well-ventilated area. Use mechanical ventilation for storage areas.  
 Acid/Chemical cartridge respirator  
 Apron  
 Chemical splash goggles  
 Face shield  
 Nitrile gloves  
 Exhaust ventilation

**Exposure Guidelines:**

PEL	Formaldehyde	0.75ppm	TWA	2ppm	STEL	See 29CFR1900.1048 (c)
	Methanol	200ppm	TWA			
TLV	Formaldehyde			0.3ppm	STEL	Sensitizer
	Methanol (Skin)	200ppm	TWA	250ppm	STEL	

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Formaldehyde	0.016ppm	TWA	0.1ppm	CEIL (15 min)
Methanol (Skin)	200ppm	TWA	250ppm	STEL

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, colorless liquid	<b>Odor:</b>	Formaldehyde
<b>Odor Threshold:</b>	No information	<b>Molecular Formula:</b>	Does not apply
<b>Spec Grav./Density:</b>	1.089 SG	<b>Solubility:</b>	Miscible
<b>Sat. Vap. Concentrat.</b>	No information	<b>Percent Volatile:</b>	No information
<b>Boiling Point:</b>	101C	<b>Freezing/Melting Pt.:</b>	0C
<b>Vapor Pressure:</b>	No information	<b>Flash Point:</b>	73C
<b>pH:</b>	6.83	<b>Vapor Density:</b>	>1
<b>Evap. Rate:</b>	No information	<b>VOC:</b>	No information
<b>Decomp Temp:</b>	No information	<b>Auto-Ignition Temp:</b>	No information
		<b>UFL/LFL:</b>	No information

## 10 STABILITY AND REACTIVITY

<b>Stability:</b>	Product is stable under normal conditions.
<b>Conditions to Avoid:</b>	Sources of ignition. Excessive heat or cold.
<b>Materials to Avoid:</b>	Strong acids and strong oxidizers. Bases.
<b>Hazardous Decomposition:</b>	Carbon oxides. Formaldehyde and Methanol vapor.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11 TOXICOLOGICAL INFORMATION

The Acute Toxicity properties of this mixture have not been established.

Causes skin, eye and respiratory tract irritation.  
Harmful if swallowed inhaled or absorbed through skin.  
May cause skin or respiratory tract allergic reaction or other respiratory symptoms.

### Formaldehyde

Oral rat LD50: 100 mg/kg; skin rabbit LD50: 270 uL/kg  
Irritation data: eye, rabbit, 750ug Severe; inhalation rat LC50: 203 mg/m3; investigated as a tumorigen, mutagen, reproductive effector.

### Methanol

Oral rat LD50: 5628 mg/kg; inhalation rat LC50: 64000ppm/4H; skin rabbit LD50: 15800 mg/kg; investigated as a tumorigen, mutagen, reproductive effector.

<b>Carcinogenicity:</b>	NTP-R Formaldehyde is known to be a human carcinogen.
	IARC-1 Carcinogenic to humans.
	OSHA-Ca Carcinogen defined with no further categorization.

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### 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available  
**Persistence and degradability:** No information available  
**Bioaccumulative potential:** No information available  
**Mobility in soil:** No information available

### 13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable federal, state and local environmental regulations.

### 14 TRANSPORT INFORMATION

**DOT**  
Class 9  
NA3082  
Other regulated substances, liquid, n.o.s. (formaldehyde solution, 20%)

**IATA**  
Class 9  
UN3334  
Aviation Regulated Liquid, n.o.s. (formaldehyde solution, 20%)

**NOTE:** The information contained in this section may not be applicable for all package sizes or methods of transport. It is the shipper's responsibility to ensure that all applicable classification, packaging, labeling and documentation requirements are met.

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### REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

\*Formaldehyde (50000 18-21%) CERCLA, CSWHS, EHS302, EPCRAWPC, HAP, MASS, NJEHS, NJHS, NRC, OSHAHTS, OSHAPSM, PA, PROP65, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

\*Methanol (67561 5-6%) CERCLA, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

#### REGULATORY KEY DESCRIPTIONS

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  
OSHAWAC = OSHA Workplace Air Contaminants  
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

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### OTHER INFORMATION

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----- END OF SAFETY DATA SHEET -----