



SAFETY DATA SHEET

1. Chemical Product and Company Identification

Description: Buffer Calibration Solution, pH 4.01 (Color Coded-RED)
Product Code: Signet Part Number 3822-7004
Product Type: Aqueous Salt Solution
Application: Calibration of pH and ORP Electrodes

Manufacturer/Supplier Information

Manufactured for and SDS prepared by:
Georg Fischer Signet LLC
3401 Aero Jet Ave.
El Monte, California 91731

Date Prepared: 11/29/2018

For additional health, safety or regulatory information, call (626) 571-2770

**For Chemical Emergency
Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night**

DOMESTIC NORTH AMERICA 800-424-9300

**INTERNATIONAL, REFER TO THE INFORMATION CONTAINED HEREIN AND CALL YOUR
LOCAL GF OFFICE**

2. Hazard(s) Identification

Classification: Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2
Label Elements: None required

Hazards not otherwise classified (HNOC) WARNING:

Cancer and Reproductive Harm - <https://www.p65warnings.ca.gov/>.

3. Composition / Information on Ingredients

Potassium Hydrogen Phthalate

CAS Number: 877-24-7
% w/v: 1.0

Formaldehyde

CAS Number: 50-00-0
% w/v: 0.05

Methyl Alcohol

CAS Number: 67-56-1
% w/v: 0.02

Fluorescein, 2',4',5',7'-Tetraiodo Disodium Salt

CAS Number: 16423-68-0
% w/v: 0.02

Water

CAS Number: 7732-18-5
% w/v: 98.91

4. First Aid Measures

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion: Do not induce vomiting. Obtain medical attention.

Most Important Symptoms/Effects: None reasonably foreseeable.

Notes to Physician: Treat symptomatically

5. Fire Fighting Measures

Suitable Extinguishing Media: Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media: No information available

Flash Point: Not applicable

Method: No information available

Autoignition Temperature: No information available

Explosion Limits:

Upper: No data available

Lower: No data available

Hazardous Combustion Products: Decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical Hazards
1	0	0	N/A

6. Accidental Release Measures

Personal Precautions: Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental Precautions: Avoid release to the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up:

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling: Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure Controls / Personal Protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Formaldehyde	TWA: 0.1 ppm STEL: 0.3 ppm	(Vacated) TWA: 3 ppm (Vacated) STEL: 10 ppm (Vacated) Ceiling: 5 ppm TWA: 0.75 ppm STEL: 2 ppm	IDLH: 20 ppm TWA: 0.016 ppm Ceiling: 0.1 ppm
Methyl Alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m ³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m ³ Skin TWA: 200 ppm TWA: 260 mg/m ³	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Formaldehyde	Ceiling: 2 ppm Ceiling: 3 mg/m ³	Ceiling: 2 ppm Ceiling: 3 mg/m ³	STEL: 1.0 ppm CEV: 1.5 ppm
Methyl Alcohol	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³ Skin	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 310 mg/m ³	TWA: 200 ppm STEL: 250 ppm Skin

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH- The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures: Ensure adequate ventilation, especially in confined areas.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and Body Protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Physical State:	Liquid
Appearance:	Red
Odor:	Odorless
Odor Threshold:	No information available
pH:	4.0
Melting Point/Range:	0 °C / 32 °F
Boiling Point/Range:	100 °C / 212 °F
Flash Point:	Not applicable
Evaporation Rate:	> 1.0 (Ether = 1.0)
Flammability (solid,gas):	No information available
Flammability or Explosive Limits:	
Upper:	No data available
Lower:	No data available
Vapor Pressure:	No information available
Vapor Density:	0.7 (Water = 1.0)
Relative Density:	1.0
Solubility:	Soluble in water
Decomposition Temperature:	No information available
Viscosity:	No information available
VOC Content (%):	0.0700000002980232

10. Stability and Reactivity

Reactive Hazard:	None known, based on information available.
Stability:	Stable under normal conditions.
Conditions to Avoid:	No information available
Incompatible Materials:	None known
Hazardous Decomposition Products:	None under normal use conditions.
Hazardous Polymerization:	Hazardous polymerization does not occur.
Hazardous Reactions:	None under normal processing.

11. Toxicological Information

Acute Toxicity: May be harmful by inhalation, ingestion, or skin absorption.

Component Information:

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium Hydrogen Phthalate	3200 mg/kg (Rat)	Not listed	Not listed
Formaldehyde	500 mg/kg (Rat)	270 mg/kg (Rabbit)	0.578 mg/L (Rat) 4 h
Methyl Alcohol	6200 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h
Fluorescein, 2',4',5',7'- Tetraiodo, Disodium Salt	1840 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic

Products:	No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure	
Irritation:	No information available
Sensitization:	No information available
Carcinogenicity:	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component Information:

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Potassium Hydrogen Phthalate	877-24-7	Not listed	Not listed	Not listed	Not listed	Not listed
Formaldehyde	50-00-0	Group1	Known	A1	X	A2
Methyl Alcohol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed
Fluorescein, 2',4',5',7'-Tetraiodo, Disodium Salt	16423-68-0	Not listed	Not listed	Not listed	Not listed	Not listed

IARC: (International Agency for Research on Cancer):

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program):

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists):

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen
- ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits – Carcinogens:

- A1 - Confirmed Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Confirmed Animal Carcinogen
- A4 - Not Classifiable as a Human Carcinogen
- A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects:

No information available

Reproductive Effects:

No information available

Developmental Effects:

No information available

Teratogenicity:

No information available

STOT - Single Exposure:

None known

STOT - Repeated Exposure:

None known

Aspiration hazard:

No information available

Symptoms / Effects:

No information available

Endocrine Disruptor Information:

No information available

Other Adverse Effects:

The toxicological properties have not been fully investigated.

12. Ecological Information**Component Information:**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Formaldehyde	Not listed	Leuciscus idus: LC50 = 15 mg/L 96h	Not listed	EC50 = 20 mg/L 96h EC50 = 2 mg/L 48h
Methyl Alcohol	Not listed	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h

Persistence and Degradability: No information available
Bioaccumulation/ Accumulation: No information available

Mobility:

Component	log Pow
Formaldehyde	-0.35
Methyl Alcohol	-0.74

13. Disposal Considerations

Dilute with water, neutralize with weak sodium hydroxide solution, and then flush to sewer if local regulations allow. Always dispose of in accordance with local, state and federal regulations.

Component	RCRA – U Series Wastes	RCRA – P Series Wastes
Formaldehyde – 50-00-0	U122	-
Methyl Alcohol – 67-56-1	U154	-

14. Transportation Information

DOT. SHIPPING NAME: Not regulated
DOT. HAZARD CLASS: Not regulated
TDG: Not regulated
IATA: Not regulated
IMDG/IMO: Not regulated

15. Regulatory Information

All of the components in the product are on the following Inventory lists:

Australia X = listed China Canada Europe TSCA Korea Philippines.

International Inventories:

Component	TSCA	DSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Water	X	X	231-791-2	X	-	X	X	X
Potassium Hydrogen Phthalate	X	X	212-889-4	X	X	X	X	X
Formaldehyde	X	X	200-001-8	X	X	X	X	X
Methyl Alcohol	X	X	200-659-6	X	X	X	X	X
Fluorescein	X	X	240-474-8	X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance.

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule.

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations:

TSCA 12(b): Not applicable

SARA 313:

Component	CAS-No	Weight %	SARA 313 – Threshold Values %
Formaldehyde	50-00-0	0.05	0.1
Methyl Alcohol	67-56-1	0.02	1.0

SARA 311/312 Hazardous Categorization:

Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

Clean Water Act:

Component	CWA - Hazardous	CWA – Reportable Quantities	CWA – Toxic	Component CWA - Hazardous
Formaldehyde	X	100 lb	-	-

Clean Air Act:

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Formaldehyde	X	-	-
Methyl Alcohol	X	-	-

OSHA Occupational Safety and Health Administration:

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Formaldehyde	2 ppm STEL 0.5 ppm Action Level 0.75 ppm TWA	TQ: 1000 lb

CERCLA:

Component	Hazardous Substances RQs	CERCLA EHS RQs
Formaldehyde	100 lb	100 lb
Methyl Alcohol	5000 lb	-

California Proposition 65 This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Formaldehyde	50-00-0	Carcinogen (gaseous only)	40 µg/day	Carcinogen
Methyl Alcohol	67-56-1	Developmental	-	Developmental

State Right-to-Know:

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Formaldehyde	X	X	X	X	X
Methyl Alcohol	X	X	X	X	X

U.S. Department of Transportation:

Reportable Quantity (RQ): Y
DOT Marine Pollutant: N
DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security:

This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Formaldehyde	11250 lb STQ (solution)

Other International Regulations

Mexico – Grade: No information available

17. Disclaimer

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Revision

Date of latest revision: 11/29/2018
Responsibility for SDS: S.K. Wells

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