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DOCUMENT # : F/RPI/QC 7.7.3-02	PRODUCT NAME: Formalin 10% Neutral Buffered Solution		RPI ITEM NO: F10800

### **SECTION 1 - CHEMICAL IDENTIFICATION**

PRODUCT NAME: Formalin 10% Neutral Buffered Solution  
 RPI CATALOG #: F10800  
 SUPPLIER'S NAME: Research Products International Corp.  
 SUPPLIERS ADDRESS: 410 N Business Center Drive Mount Prospect, IL 60056  
 EMERGENCY CONTACT: 1-800-424-9300  
 OTHER INFORMATION: 847-635-7330

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

H315	Skin corrosion/irritation	Category 2
H317	Skin Sensitisation	Category 1
H318	Serious eye damage	Category 1
H350	Carcinogenicity	Category 1A
H370	Specific target organ toxicity - single exposure	Category 1
H371	Specific target organ toxicity - single exposure	Category 2
H373	Specific target organ toxicity, repeated exposure	Category 2

#### **2.2 GHS Label elements, including Hazard and Precautionary Statement(s) Pictogram**



**Signal word: Danger**  
**Hazard statement(s)**

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H350	May Cause cancer
H370	Causes damage to organs.
H371	May Cause damage to organs.
H373	May cause damage to organs prolonged or repeated exposure

#### **Prevention, Response, Storage and Disposal Precautionary Statement(s)**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling

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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.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: call a POISON CENTER or doctor/ physician
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (see. on this label).
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash before reuse.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

### **SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	EINECS Number	Composition
Water	7732-18-5	231-791-2	Q. S
Formaldehyde	50-00-0	200-001-8	<4.0
Sodium Phosphate Dibasic	7558-79-4	231-448-7	6.5 g/L
Sodium Phosphate, Monobasic	7558-80-7	231-449-2	4.0 g/L

### **SECTION 4 - FIRST-AID MEASURES**

#### **4.1 Description of first aid measures**

**General advice:** Consult a doctor and show this safety data sheet.

- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

### **SECTION 5 - FIRE FIGHTING MEASURES**

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### 5.1 Extinguishing media

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

**5.2 Special hazards arising from the substance or mixture:** Formaldehyde Methanol Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>).

**5.3 Precautions for fire-fighters:** Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

**5.4 Further information:** No data available

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

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

**6.3 Methods and materials for containment and cleaning up:** Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections:** For required PPE see section 8. For disposal see section 13.

## **SECTION 7 - HANDLING AND STORAGE**

**7.1 Precautions for safe handling:** Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Store at 2-8°C.

**7.3 Specific end use(s):** Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1 Control parameters

#### Components with workplace control parameters:

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Formaldehyde	Ceiling: 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
Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Formaldehyde	Ceiling: 2 ppm Ceiling: 3 mg/m <sup>3</sup>	Ceiling: 2 ppm Ceiling: 3 mg/m <sup>3</sup>	STEL: 1.0 ppm CEV: 1.5 ppm

❖ **ACGIH:** American Conference of Governmental Industrial Hygienists.

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- ❖ **OSHA:** Occupational Safety and Health Administration.
- ❖ **NIOSH IDLH:** The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health.

## 8.2 Exposure Controls

- i. **Appropriate engineering controls:** Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

## 8.3 Personal protective equipment

- i. **Eye/face 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).
- ii. **Skin 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
- iii. **Body Protection:** Wear appropriate protective clothing. 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.
- iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
- v. **Control of environmental exposure:** Do not let product enter drains

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid	<b>Vapor Pressure</b>	No Data Available
<b>Odor</b>	No Data Available	<b>Vapor Density</b>	No Data Available
<b>Odor Threshold</b>	No Data Available	<b>Relative Density</b>	No Data Available
<b>pH</b>	No Data Available	<b>Water Solubility</b>	No Data Available
<b>Melting / Freezing Point</b>	No Data Available	<b>Partition Coefficient</b>	No Data Available
<b>Initial Boiling Point Range</b>	No Data Available	<b>Auto-Ignition Temperature</b>	No Data Available
<b>Flash Point</b>	No Data Available	<b>Decomposition Temperature</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available	<b>Viscosity</b>	No Data Available
<b>Flammability (Solid, Gas)</b>	No Data Available	<b>Explosive Properties</b>	No Data Available
<b>Upper / Lower Flammability Or Explosive Limits</b>	No Data Available	<b>Oxidizing Properties</b>	No Data Available

## SECTION 10 - STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Hazardous Decomposition Products:** Formaldehyde, Methanol, Carbon monoxide (CO), Carbon dioxide (CO2).

**Incompatibilities:** Strong oxidizing agents, Strong acids, Strong bases.

**Conditions to Avoid:** Incompatible products. Heat, flames and sparks.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Acute Toxicity



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Listed	Listed	-	-	-	Listed	-	Listed	Listed	Listed
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<b>INGREDIENT: Formaldehyde</b>					<b>CAS #:50-00-0</b>		<b>EINECS: 200-001-8</b>		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

<b>INGREDIENT: Sodium Phosphate Dibasic</b>					<b>CAS #:7558-79-4</b>		<b>EINECS: 231-448-7</b>		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

<b>INGREDIENT: Sodium Phosphate, Monobasic</b>					<b>CAS #:7558-80-7</b>		<b>EINECS: 231-449-2</b>		
TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

**USA FEDERAL REGULATION  
SARA 311/312 HAZARDOUS CATEGORIZATION**

<b>Acute Health Hazard</b>	<b>Chronic Health Hazard</b>	<b>Fire Hazard</b>	<b>Sudden Release Of Pressure Hazard</b>	<b>Reactive Hazard</b>
Yes	Yes	No	No	No

**SARA 313**

<b>Component</b>	<b>CAS#</b>	<b>Weight %</b>	<b>SARA 313 – Threshold Values %</b>
Formaldehyde	50-00-0	3.7	0.1

**Clean Water Act**

<b>Component</b>	<b>CWA – Hazardous Substances</b>	<b>CWA – Reportable Quantities</b>
Formaldehyde	Listed	100 lb
Sodium Phosphate Dibasic	Listed	5000 lb

**Clean Air Act**

<b>Component</b>	<b>HAPS Data</b>
Formaldehyde	Listed

**OSHA**

<b>Component</b>	<b>Specifically, Regulated Chemicals</b>	<b>Highly Hazardous Chemicals</b>
Formaldehyde	2 ppm STEL 0.5 ppm Action Level 0.75 ppm TWA	TQ: 1000 lb

**CERCLA**

<b>Component</b>	<b>Hazardous Substances RQs</b>	<b>CERCLA EHS RQs</b>
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Formaldehyde	100 lb	100 lb
Sodium Phosphate Dibasic	5000 lb	-

**California Proposition 65:** This product contains Proposition 65 chemicals.

Component	CAS#	California Prop. 65	Prop 65 NSRL	Category
Formaldehyde	50-00-0	Carcinogen	40 µg/day	Carcinogen

**HMIS Rating**

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
<b>3</b>	<b>*</b>	<b>4</b>	<b>0</b>

**NFPA Rating**

Health Hazard	Fire Hazard	Reactivity Hazard
<b>3</b>	<b>4</b>	<b>0</b>

**STATE RIGHT TO KNOW**

Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Listed	Listed	Listed	Listed	Listed

**US DEPARTMENT OF TRANSPORTATION**

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
<b>Yes</b>	<b>No</b>	<b>No</b>

**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)
Sodium Phosphate, Monobasic	2000 lb STQ

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Mexico - Grade:** Slight Risk, Grade 1

**This SDS complies with the requirements of Regulation (EC).**

**SECTION 16 - OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Research Products International Corp. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. This product is sold for laboratory research and development purposes use only.