# SAFETY DATA SHEET

**Creation date: 09-Feb-2015** **Revision DATE: 04-December-2018** **Revision number: 4**

## 1. Identification

**Product Name** **10% Neutral Buffered Formalin**

**Cat No. :** **M960-20FMA, M960-40FMA, M960-60FMA, M960-90FMA, M960-120FMA, M961-20FW, M961-40FW, M961-60FW, M961-90FW, M961-120FW, M970-D5B-2, M970-D8P, M970-D12P, M970-D8UGI, M970-D12LGI, M970-D5, M970-D8, M970-D12**

**Synonyms** No information available

**Recommended Use** Laboratory chemicals

**Uses advised against** Not for food, drug, pesticide or biocidal product use

**Details of the supplier of the safety data sheet**

**Company**
Simport Scientific Inc.
2588 Bernard-Pilon
Beloeil, Qc, Canada
J3G 4S5
Tel: 450- 464-1723

**Emergency Telephone Number**
Carechem 24 International
Canada: 1-800-579-7421 (Toll Free)
Americas: 1-202-464-2554
Europe: +44 1865 407333

## 2. Hazard(s) identification

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Skin Sensitization | Category 1 |
| Germ Cell Mutagenicity | Category 2 |
| Carcinogenicity | Category 1A |
| Special target organ toxicity (single exposure) | Category 1 |
| Target Organs - respiratory system, Central nervous system (CNS) | |
| Specific target organ toxicity - (repeated exposure) | Category 2 |
| Target Organs - kidney, liver, spleen, blood | |

**Label Elements**

**Signal Word**
Danger

**Hazard Statements**
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
May cause respiratory irritation
May cause drowsiness or dizziness
Suspected of causing genetic defects
May cause cancer
Causes damage to organs
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements**
**Prevention**
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
**Response**
IF exposed: Call a POISON CENTER or doctor/physician
**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
**Skin**
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
**Storage**
Store locked up
Store in a well-ventilated place. Keep container tightly closed
**Disposal**
Dispose of contents/container to an approved waste disposal plant
**Hazards not otherwise classified (HNOC)**
WARNING! This product contains a chemical known in the State of California to cause cancer.

## 3. Composition / information on ingredients

| Component | CAS-No | Weight % |
|---|---|---|
| Water | 7732-18-5 | 94 - 95 |
| Formaldehyde | 50-00-0 | 3.5 - 4 |
| Methyl alcohol | 67-56-1 | 1.2 |
| Sodium phosphate dibasic | 7558-79-4 | < 1 |
| Sodium phosphate, monobasic | 7558-80-7 | < 1 |

## 4. First-aid measures

**General Advice** If symptoms persist, call a physician.

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

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation** Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and Effects**

None reasonably foreseeable. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media** No information available

**Flash Point** > 93.3 °C / > 199.9 °F

**Method -** No information available

**Autoignition Temperature** No information available

**Explosion Limits**

- **Upper** No data available
- **Lower** No data available
- **Sensitivity to Mechanical Impact** No information available
- **Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

**Hazardous Combustion Products**

Formaldehyde Methanol Carbon monoxide (CO) Carbon dioxide ($CO_2$)

**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 |
|---|---|---|---|
| 3 | 1 | 0 | NA |

## 6. Accidental release measures

**Personal Precautions** Use personal protective equipment. Ensure adequate ventilation.

**Environmental Precautions** Should not be released into the environment.

**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. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat and sources of ignition. Keep away from heat. Keep in properly labeled containers.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|---|---|---|---|
| Formaldehyde | TWA: 0.1 ppm<br>STEL: 0.3 ppm | (Vacated) TWA: 3 ppm<br>(Vacated) STEL: 10 ppm<br>(Vacated) Ceiling: 5 ppm<br>TWA: 0.75 ppm<br>STEL: 2 ppm | IDLH: 20 ppm<br>TWA: 0.016 ppm<br>Ceiling: 0.1 ppm | Ceiling: 2 ppm<br>Ceiling: 3 mg/m$^3$ |
| Methyl alcohol | TWA: 200 ppm<br>STEL: 250 ppm<br>Skin | (Vacated) TWA: 200 ppm<br>(Vacated) TWA: 260 mg/m$^3$<br>(Vacated) STEL: 250 ppm<br>(Vacated) STEL: 325 mg/m$^3$<br>Skin<br>TWA: 200 ppm<br>TWA: 260 mg/m$^3$ | IDLH: 6000 ppm<br>TWA: 200 ppm<br>TWA: 260 mg/m$^3$<br>STEL: 250 ppm<br>STEL: 325 mg/m$^3$ | TWA: 200 ppm<br>TWA: 260 mg/m$^3$<br>STEL: 250 ppm<br>STEL: 310 mg/m$^3$ |

***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** Use only under a chemical fume hood. 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. Tightly fitting safety goggles.

**Skin and body protection** Long sleeved clothing.

**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 EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

## 9. Physical and chemical properties

**Physical State** Liquid

**Appearance** Clear Colorless

| | |
|---|---|
| **Odor** | Characteristic formaldehyde |
| **Odor Threshold** | No information available |
| **pH** | 7 |
| **Melting Point/Range** | No data available |
| **Boiling Point/Range** | Not applicable |
| **Flash Point** | > 93.3°C / 199.9°F |
| **Evaporation Rate** | No information available |
| **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** | No information available |
| **Specific Gravity** | No information available |
| **Solubility** | No information available |
| **Partition coefficient; n-octanol/water** | No data available |
| **Autoignition Temperature** | No information available |
| **Decomposition temperature** | No information available |
| **Viscosity** | No information available |
| **Molecular Formula** | Solution |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available.

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products. Heat, flames and sparks. Heating in air.

**Incompatible Materials** Strong oxidizing agents, Strong acids, Strong bases

**Hazardous Decomposition Products** Formaldehyde, Methanol, Carbon monoxide (CO), Carbon dioxide ($CO_2$)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Acute Toxicity**

**Product Information** No acute toxicity information is available for this product
**Oral LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
**Dermal LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
**Vapor LC50** Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.
**Component Information**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Water | - | Not listed | Not listed |
| Formaldehyde | 500 mg/kg ( Rat ) | LD50 = 270 mg/kg ( Rabbit ) | 0.578 mg/L ( Rat ) 4 h |
| Methyl alcohol | **Calc. ATE 60 mg/kg** LD50 > 1187 – 2769 mg/kg ( Rat | **Calc. ATE 60 mg/kg** LD50 = 17100 mg/kg ( Rabbit ) | **Calc. ATE 0.6 mg/L (vapours) or 0.5 mg/L (mists)** LC50 = 128.2 mg/L ( Rat ) 4 h |
| Sodium phosphate dibasic | LD50 = 17 g/kg ( Rat ) | Not listed | Not listed |
| Sodium phosphate, monobasic | LD50 = 8290 mg/kg ( Rat ) | LD50 > 7940 mg/kg ( Rabbit ) | 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** May cause sensitization by skin contact.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Formaldehyde | 50-00-0 | Group 1 | Known | A1 | X | A2 |
| Methyl alcohol | 67-56-1 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Sodium phosphate dibasic | 7558-79-4 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Sodium phosphate, monobasic | 7558-80-7 | Not listed | Not listed | Not listed | Not listed | Not listed |

***IARC: (International Agency for Research on Cancer)***

*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)***

*NTP: (National Toxicity Program)*
*Known - Known Carcinogen*
*Reasonably Anticipated - Reasonably Anticipated to be a HumanCarcinogen*

***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***

*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** Mutagenic effects have occurred in humans.

**Reproductive Effects** Experiments have shown reproductive toxicity effects on laboratory animals.

**Developmental Effects** Developmental effects have occurred in experimental animals.

**Teratogenicity** Teratogenic effects have occurred in experimental animals.

**STOT - single exposure** Respiratory system, Central nervous system (CNS).
**STOT - repeated exposure** Kidney, Liver, spleen, Blood.
**Aspiration hazard** No information available.

**Symptoms / effects, both acute and delayed** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|
| Formaldehyde | Not listed Not | *Leuciscus idus*: LC50 = 15 mg/L 96h | Not listed | EC50 = 20 mg/L 96h<br>EC50 = 2 mg/L 48h |
| Methyl alcohol | Not listed | *Pimephales promelas*: LC50 > 10000 mg/L 96h | EC50 = 39000 mg/L 25 min<br>EC50 = 40000 mg/L 15 min<br>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

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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

## 14. Transport information

**DOT** 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 Complete Regulatory Information contained in following SDS's X = listed China Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Korea Philippines

**International Inventories**

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | CHINA | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Water | x | x | - | 231-791-2 | - | | 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 |
| Sodium phosphate dibasic | x | x | - | 231-448-7 | - | | x | x | x | x | x |
| Sodium phosphate, monobasic | x | x | - | 231-449-2 | - | | 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 % |
|---|---|---|---|
| Methyl Alcohol | 67-56-1 | 1.2 | 1.0 |
| Formaldehyde | 50-00-0 | 3.5-4 | 0.1 |

**SARA 311/312 Hazardous Categorization**

| | |
|---|---|
| **Acute Health Hazard** | Yes |
| **Chronic Health Hazard** | Yes |
| **Fire Hazard** | Yes |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | No |

**Clean Water Act**

| Component | CWA – Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|---|---|---|---|---|
| Formaldehyde | x | 100 lb- | - | - |
| Sodium phosphate dibasic | x | 5000 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

Not applicable

| Component | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|---|---|---|
| Formaldehyde | 2 ppm STEL<br>0.5 ppm Action Level<br>0.75 ppm TWA | TQ: 1000 lb |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|---|---|---|
| Formaldehyde | 100 lb | 100 lb |
| Methyl alcohol | 5000 lb | - |
| Sodium phosphate dibasic | 5000 lb | - |

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

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

**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Water | - | - | x | - | - |
| Formaldehyde | x | x | x | x | x |
| Methyl alcohol | x | x | x | x | x |
| Sodium phosphate dibasic | 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) |
| Sodium phosphate, monobasic | 2000 lb STQ |

## 16. Other information

**Prepared By**
Simport Scientific Inc.
Email: Quality@simport.com
Tel: 450-464-1723

**Creation Date** 09-Feb-2015
**Revision Date** 20-March-2018
**Print Date** 20-March-2018

**Disclaimer**
**The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.**

**END OF SDS**