

Issuing Date 05-Jun-2018

Revision Date 05-Jun-2018

Revision Number 1

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

**Product identifier**

**Product name** Para-Pak® SAF and Para-Pak® ULTRA SAF

**Other means of identification**

**Product code** 9002

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Fixative

**Uses advised against** No information available

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

**Manufacturer Address**

Meridian Bioscience, Inc.  
3471 River Hills Drive  
Cincinnati, Ohio 45244  
(800) 343-3858

**E-mail Address** www.meridianbioscience.com

**Emergency telephone number**

**Emergency telephone** Emergency telephone CHEMTREC For US 1-800-424-9300 / (International) 1-703-527-3887

**2. HAZARDS IDENTIFICATION**

**Classification**

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

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Gases)	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1B

**Hazards not otherwise classified (HNOC)**

Not applicable

**Label elements**

**Signal word**

Danger

**Hazard statements**

Toxic if swallowed  
 Toxic in contact with skin  
 Fatal if inhaled  
 Causes skin irritation  
 Causes serious eye damage  
 May cause an allergic skin reaction  
 Suspected of causing genetic defects  
 May cause cancer

**Appearance** No information available**Physical state** Liquid**Odor** Pungent**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Wear respiratory protection  
 Contaminated work clothing must not be allowed out of the workplace

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 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  
 IF ON SKIN: Wash with plenty of water and soap  
 Call a POISON CENTER or doctor if you feel unwell  
 Take off immediately all contaminated clothing and wash it before reuse  
 If skin irritation or rash occurs: Get medical advice/attention  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 Immediately call a POISON CENTER or doctor  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Information**

Not applicable

**Unknown acute toxicity** 98.6 % of the mixture consists of ingredient(s) of unknown toxicity

- 95 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 95 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 98.6 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 98.6 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 95 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Chemical Name	CAS No.	Weight-%	Trade secret
Acetic acid	64-19-7	2	*
Formaldehyde	50-00-0	1.6	*
Methyl alcohol	67-56-1	0.4	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.

#### Most important symptoms/effects, acute and delayed

**Symptoms** No information available.

#### Indication of immediate medical attention and special treatment needed, if necessary

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and materials for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetic acid 64-19-7	STEL: 15 ppm TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m <sup>3</sup>	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>
Formaldehyde 50-00-0	Ceiling: 0.3 ppm	TWA: 0.75 ppm (vacated) TWA: 3 ppm unless specified in 1910.1048 (vacated) STEL: 10 ppm 30 min unless specified in 1910.1048 (vacated) Ceiling: 5 ppm unless specified in 1910.1048 STEL: 2 ppm see 29 CFR 1910.1048	IDLH: 20 ppm Ceiling: 0.1 ppm 15 min TWA: 0.016 ppm
Methyl alcohol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m <sup>3</sup> (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m <sup>3</sup> (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Skin and body protection**                      No special protective equipment required.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

**Physical state**                                      Liquid  
**Appearance**                                      No information available  
**Color**    colorless  
**Odor**     Pungent  
**Odor threshold**                                    No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point/boiling range</b>	100 °C / 212 °F	None known
<b>Flash Point</b>	> 105 °C / 221 °F	Open cup
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	Soluble in water
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

**Other Information**

**Softening point**                                      No information available  
**Molecular weight**                                    No information available  
**VOC Content(%)**                                      No information available  
**Liquid Density**                                      No information available  
**Bulk density**                                         No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**                                         No information available.

<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	No information available.
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### Numerical measures of toxicity

#### Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	243.00 mg/kg
<b>ATEmix (dermal)</b>	585.00 mg/kg
<b>ATEmix (inhalation-gas)</b>	350.04 ppm
<b>ATEmix (inhalation-dust/mist)</b>	1.25 mg/l

**Unknown acute toxicity** 98.6 % of the mixture consists of ingredient(s) of unknown toxicity

- 95 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 95 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 98.6 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 98.6 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 95 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetic acid 64-19-7	3310 mg/kg ( Rat )	1060 mg/kg ( Rabbit )	11.4 mg/L ( Rat ) 4 h
Formaldehyde 50-00-0	100 mg/kg ( Rat )	270 mg/kg ( Rabbit )	0.578 mg/L ( Rat ) 4 h
Methyl alcohol 67-56-1	6200 mg/kg ( Rat )	15800 mg/kg ( Rabbit )	22500 ppm ( Rat ) 8 h 64000 ppm ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Formaldehyde 50-00-0	A2	Group 1	Known	X

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetic acid 64-19-7	-	79: 96 h Pimephales promelas mg/L LC50 static 75: 96 h Lepomis macrochirus mg/L LC50 static	EC50 = 8.8 mg/L 15 min EC50 = 8.8 mg/L 25 min EC50 = 8.8 mg/L 5 min	65: 48 h Daphnia magna mg/L EC50 Static 47: 24 h Daphnia magna mg/L EC50
Formaldehyde 50-00-0	-	22.6 - 25.7: 96 h Pimephales promelas mg/L LC50 flow-through 1510: 96 h Lepomis macrochirus µg/L LC50 static 41: 96 h Brachydanio rerio mg/L LC50 static 0.032 - 0.226: 96 h Oncorhynchus mykiss mL/L LC50 flow-through 100 - 136: 96 h Oncorhynchus mykiss mg/L LC50 static 23.2 - 29.7: 96 h Pimephales promelas mg/L LC50 static	EC50 = 1.2 mg/L 1 h EC50 = 16.5 mg/L 30 min EC50 = 3.7 mg/L 5 h EC50 = 5.39 mg/L 72 h EC50 = 6.81 mg/L 25 min EC50 = 7.26 mg/L 15 min EC50 = 9.0 mg/L 5 min	2: 48 h Daphnia magna mg/L LC50 11.3 - 18: 48 h Daphnia magna mg/L EC50 Static
Methyl alcohol 67-56-1	-	28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	-

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

Chemical Name	Partition coefficient
Acetic acid 64-19-7	-0.31
Formaldehyde 50-00-0	0.35
Methyl alcohol 67-56-1	-0.77

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Formaldehyde 50-00-0	U122	Included in waste streams: K009, K010, K038, K040, K156, K157	-	U122
Methyl alcohol 67-56-1	-	Included in waste stream: F039	-	U154

Chemical Name	California Hazardous Waste Status
Acetic acid 64-19-7	Toxic Corrosive Ignitable
Formaldehyde 50-00-0	Toxic Ignitable
Methyl alcohol 67-56-1	Toxic Ignitable

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA Complies  
 DSL/NDSL -  
 EINECS/ELINCS -  
 ENCS Complies  
 IECSC Complies



KECL	-
PICCS	Complies
AICS	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:.

Chemical Name	SARA 313 - Threshold Values %
Formaldehyde - 50-00-0	0.1
Methyl alcohol - 67-56-1	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):.

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic acid 64-19-7	5000 lb	-	-	X
Formaldehyde 50-00-0	100 lb	-	-	X

**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):.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Acetic acid 64-19-7	5000 lb	-
Formaldehyde 50-00-0	100 lb	100 lb
Methyl alcohol 67-56-1	5000 lb	-

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical Name	California Prop. 65
Formaldehyde - 50-00-0	Carcinogen

Methyl alcohol - 67-56-1	Developmental
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**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acetic acid 64-19-7	X	X	X
Formaldehyde 50-00-0	X	X	X
Methyl alcohol 67-56-1	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**NFPA**                      Health hazards -              Flammability -              Instability -              Physical and chemical properties -  
**HMIS**                      Health hazards -              Flammability -              Physical hazards -              Personal protection -

Issuing Date                      05-Jun-2018

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Revision Note                      No information available.

**Disclaimer**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Meridian Bioscience, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product.

**End of Safety Data Sheet**