

MATERIAL SAFETY DATA SHEET According to ANSI Z400.1-1998/ISO 11014-

Para-Pak[®] SAF and FeKal[®] SAF - 9002

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

Product Type Fixative - 9002

Product Name Para-Pak[®] SAF and FeKal[®] SAF Catalogue Number(s) 300212, 900212, AND FK1212

Manufacturer, importer, supplier Meridian Bioscience, Inc. 3471 River Hills Drive, Cincinnati, OH 45244 U.S.A.

(513) 271-3700

EMERGENCY TELEPHONE

NUMBER

CHEMTREC: 1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% Weight	ACGIH*	ACGIH*	OSHA*
64-19-7	Acetic acid	2.0	15 ppm STEL	10 ppm TWA	10 ppm TWA; 25 mg/m3 TWA
50-00-0	Formaldehyde	1.6	N/A	N/A	N/A
6131-90-4	Acetate, sodium, trihydrate	0.9	N/A	N/A	N/A
67-56-1	Methyl alcohol	0.4	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
9002-93-1	Polyethylene glycol octylphenol ether	0.1	N/A	N/A	N/A

^{*} ACGIH - Occupational Exposure Limits - STELs

3. HAZARDS IDENTIFICATION

Emergency Overview:

- Use all necessary personal protection when handling this material.
- Irritating to eyes and skin.

Eye contact	Contact with eyes can cause irritation.		
Skin contact	Exposure can cause skin irritation.		
Inhalation: Avoid breathing vapors or mists.			
Ingestion:	Harmful if swallowed.		
	As with any chemical, use caution when handling. May cause sensitization by inhalation and skin contact.		
Properties affecting health	Cancer agent suspect		
Principle Routes of Exposure	Absorption, inhalation, and ingestion		

4. FIRST AID MEASURES

General advice	Show this safety data sheet to the doctor in attendance
	May cause sensitization by skin contact.
	Avoid contact with skin, eyes and clothing
Skin contact	Wash off immediately with soap and plenty of water
Eye contact	 Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
	If eye irritation persists, seek medical attention
Inhalation:	Move to fresh air.

^{*} ACGIH - Occupational Exposure Limits - TWAs

^{*} OSHA - Final PELs - Time Weighted Averages (TWAs)

	If exposure symptoms persist, seek medical attention.	
Ingestion:	 If swallowed or if symptoms persist, seek prompt medical attention. 	
	Call a physician or Poison Control Center immediately	
Notes to physician	Treat symptomatically	

5. FIRE-FIGHTING MEASURES		
Flash point	> 105 C (> 221 F)	
Suitable extinguishing media	carbon dioxide (CO2)	
	water spray	
	alcohol-resistant foam	
	dry chemical	
Extinguishing media which must not be used for safety reasons	No information available	
Special protective equipment for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear	
Specific methods	No special protective measures against fire required	

6. ACCIDENTAL RELEASE MEASURES			
Personal precautions	Ensure adequate ventilation		
Environmental precautions • No special environmental precautions required			
Methods for cleaning up	 Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container 		
	After cleaning, flush away traces with water		

7. HANDLING AND STORAGE

Handling

Safe handling advice	 Do not breathe vapours or spray mist. Ensure that ventilation is adequate before using this product. 	
	 Avoid contact with skin and eyes. Take necessary personal protective precautions before using this product. 	

Storage

Technical	Store in a tightly closed container. Store in a cool, dry, well ventilatied area		
measures/Precautions	away from incompatible substances.		
Incompatible products	Avoid strong bases		
	Oxidizing agent		

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures	Ensure adequate ventilation, especially in confined areas
Personal protective equipment	
Hand protection	impervious gloves
Eye protection	Avoid contact with eyes
	Wear tightly fitting safety goggles or safety glasses with side-shields
Respiratory protection	 When workers are facing concentrations above the exposure limit they must use appropriate certified respirators
Skin and body protection	Light weight protective clothing to protect exposed skin
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice
	Keep away from food, drink and animal feeding stuffs
Environmental exposure controls	No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form Liquid.
Odor Pungent.
Color Colorless.

Important Health Safety and Environmental Information

pH N/D

Boiling point/range (212 F) 100° C **Flash point** (> 221 F) $>105^{\circ}$ C

Water solubility Soluble.

10. STABILITY AND REACTIVITY			
Stability Stable under normal conditions.			
Conditions to avoid Extremes of temperature and direct sunlight			
Materials to avoid Incompatible with strong bases. Oxidizing agent.			
Hazardous decomposition None under normal use. products			
Polymerization Polymerization does not occur.			

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Product Information

LD50/dermal/rat = No information available		
LD50/oral/rat = No information available		
Chronic toxicity Possible risks of irreversible effects. Repeated contact may cause a		
	reactions in very susceptible persons.	
carcinogenic effects Cancer agent suspect.		
mutagenic effects No information available.		
Reproductive toxicity No information available.		
Target Organ Effects No information available.		

12. ECOLOGICAL INFORMATION

Component Information

CAS	Chemical Name	% Weight	ACGIH*
64-19-7	Acetic acid	2.0	10 ppm TWA
50-00-0	Formaldehyde	1.6	N/A
6131-90-4	Acetate, sodium, trihydrate	0.9	N/A
67-56-1	Methyl alcohol	0.4	200 ppm TWA
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^{*} ACGIH - Occupational Exposure Limits - TWA's

Ecotoxicity effects	No information available
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13. DISPOSAL CONSIDERATIONS

Waste from residues / unused

Contaminated packaging

products

In accordance with local and national regulations.

Empty containers should be rinsed and disposed of as appropriate for glass and plastic

containers.

Further information

14. TRANSPORT INFORMATION

DOT

UN-No Not required **Hazard Class** Not applicable

Proper shipping name

Packing group Not applicable Not applicable **Subsidiary Risk**

Para-Pak® SAF and FeKal® SAF Description

IATA

UN-No Not required **Hazard Class** Not applicable

Proper shipping name

Packing group Not applicable **Subsidiary Risk** Not applicable

Description Para-Pak® SAF and FeKal® SAF

15. REGULATORY INFORMATION

U.S. Inventories

CAS	Chemical Name	% Weight	TSCA*
64-19-7	Acetic acid	2.0	N/A
50-00-0	Formaldehyde	1.6	N/A
6131-90-4	Acetate, sodium, trihydrate	0.9	N/A
67-56-1	Methyl alcohol	0.4	N/A
9002-93-1	Polyethylene glycol octylphenol ether	0.1	N/A

^{*} TSCA - (Toxic Substances Control Act) - Export Notification

International Inventories

CAS	Chemical Name	% Weight	EINECS*	DSL - Canada*	ENCS*
64-19-7	Acetic acid	2.0	200-580-7	Present	2-688
50-00-0	Formaldehyde	1.6	200-001-8	Present	2-482
6131-90-4	Acetate, sodium, trihydrate	0.9	N/A	N/A	2-692
67-56-1	Methyl alcohol	0.4	200-659-6	Present	2-201
9002-93-1	Polyethylene glycol octylphenol ether	0.1	N/A	Present	N/A

^{*} EINECS - EINECS

16. OTHER INFORMATION

PREPARED ON 05/03/2009

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

^{*} DSL - Canada - Domestic Substances List (DSL)

^{*} ENCS - Japan Existing and New Chemical Substances (ENCS)

or from contact with the above product. Note: Formaldehyde solution contains 10-15% Methanol

End of Safety Data Sheet