



MATERIAL SAFETY DATA SHEET
According to ANSI Z400.1-1998/ISO 11014-
1:1994

Para-Pak® Zn-PVA Fixative - 9012

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

Product Type	Fixative - 9012
Product Name	Para-Pak® Zn-PVA Fixative
Catalogue Number(s)	901012
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*
64-17-5	Ethyl alcohol	25	N/A	1000 ppm TWA	1000 ppm TWA; 1900 mg/m ³ TWA
7733-02-0	Zinc sulfate	7.9	N/A	N/A	N/A
64-19-7	Acetic acid	4.8	15 ppm STEL	10 ppm TWA	10 ppm TWA; 25 mg/m ³ TWA
9002-89-5	Polyvinyl alcohol	4.6	N/A	N/A	N/A
56-81-5	Glycerin	1.9	N/A	10 mg/m ³ TWA	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
67-56-1	Methyl alcohol	1.4	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m ³ TWA
67-63-0	Isopropyl alcohol	1.4	400 ppm STEL	200 ppm TWA	400 ppm TWA; 980 mg/m ³ TWA

* ACGIH - Occupational Exposure Limits - STELs

* ACGIH - Occupational Exposure Limits - TWAs

* OSHA - Final PELs - Time Weighted Averages (TWAs)

3. HAZARDS IDENTIFICATION

Emergency Overview:

- Vapors may cause flash fire or explosion
- Contact with combustible material may cause fire
- 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:	May be harmful if swallowed.
General advice	As with any chemical, use caution when handling.
Properties affecting health	Vapors may cause drowsiness and dizziness.
Principle Routes of Exposure	Absorption, inhalation, and ingestion

4. FIRST AID MEASURES

General advice	• Show this safety data sheet to the doctor in attendance
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	<ul style="list-style-type: none"> Avoid contact with skin, eyes and clothing May be harmful by inhalation, ingestion, skin adsorption
Skin contact	<ul style="list-style-type: none"> Wash off immediately with soap and plenty of water
Eye contact	<ul style="list-style-type: none"> Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes If eye irritation persists, seek medical attention
Inhalation:	<ul style="list-style-type: none"> Move to fresh air. If exposure symptoms persist, seek medical attention.
Ingestion:	<ul style="list-style-type: none"> Call a physician or Poison Control Center immediately Immediate medical attention is required
Notes to physician	<ul style="list-style-type: none"> Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flash point	16 C (61 F)
Suitable extinguishing media	<ul style="list-style-type: none"> carbon dioxide (CO2) water spray alcohol-resistant foam dry chemical
Extinguishing media which must not be used for safety reasons	<ul style="list-style-type: none"> No information available
Special protective equipment for firefighters	<ul style="list-style-type: none"> As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
Specific methods	<ul style="list-style-type: none"> No information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	<ul style="list-style-type: none"> Ensure adequate ventilation, especially in confined areas
Environmental precautions	<ul style="list-style-type: none"> Should not be released into the environment Prevent product from entering drains Prevent further leakage or spillage if safe to do so
Methods for cleaning up	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. Keep away from heat and flame. Take precautionary measures against static discharges
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Storage

Technical measures/Precautions	<ul style="list-style-type: none"> Store in a tightly closed container. Store in a cool, dry, well ventilated area away from incompatible substances.
Incompatible products	<ul style="list-style-type: none"> Avoid strong bases Oxidizing agent

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures	<ul style="list-style-type: none"> Ensure adequate ventilation, especially in confined areas
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Personal protective equipment	
Hand protection	• Wear appropriate protective 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	• Aquatic toxicity

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form	Liquid.
Odor	No information available.
Color	Colorless.

Important Health Safety and Environmental Information

pH	N/D
Boiling point/range	(185 F) 85°C
Flash point	(61 F) 16°C
Water solubility	Soluble.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to avoid	Heat, flames and sparks
Materials to avoid	Incompatible with strong bases Oxidizing agent
Hazardous decomposition products	None under normal use.
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	No information available.
carcinogenic effects	No information available.
mutagenic effects	Aquatic toxicity.
Reproductive toxicity	No information available.
Target Organ Effects	No information available.

12. ECOLOGICAL INFORMATION

Component Information

CAS	Chemical Name	% Weight	ACGIH*

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64-17-5	Ethyl alcohol	25	1000 ppm TWA
7733-02-0	Zinc sulfate	7.9	N/A
64-19-7	Acetic acid	4.8	10 ppm TWA
9002-89-5	Polyvinyl alcohol	4.6	N/A
56-81-5	Glycerin	1.9	10 mg/m3 TWA
67-56-1	Methyl alcohol	1.4	200 ppm TWA
67-63-0	Isopropyl alcohol	1.4	200 ppm TWA

* ACGIH - Occupational Exposure Limits - TWA's

Ecotoxicity effects	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
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13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	In accordance with local and national regulations. Should not be released into the environment.
Contaminated packaging	Empty containers should be rinsed and disposed of as appropriate for glass and plastic containers.
Further information	

14. TRANSPORT INFORMATION

DOT

UN-No	UN2924
Hazard Class	3
Proper shipping name	Ethanol, Acetic Acid
Packing group	II
Subsidiary Risk	Not applicable
Description	Para-Pak® Zn-PVA Fixative

DOT

Note: Per 49 CFR - When shipping 30 mL or less per inner packaging and the gross weight does not exceed 64 lbs. use the 173.4 small quantity exception.

IATA

UN-No	UN2924
Hazard Class	3
Proper shipping name	Ethanol, Acetic Acid
Packing group	II
Subsidiary Risk	Not applicable
Description	Para-Pak® Zn-PVA Fixative

15. REGULATORY INFORMATION

U.S. Inventories

CAS	Chemical Name	% Weight	TSCA*
64-17-5	Ethyl alcohol	25	N/A
7733-02-0	Zinc sulfate	7.9	N/A
64-19-7	Acetic acid	4.8	N/A
9002-89-5	Polyvinyl alcohol	4.6	N/A
56-81-5	Glycerin	1.9	N/A
67-56-1	Methyl alcohol	1.4	N/A
67-63-0	Isopropyl alcohol	1.4	N/A

* TSCA - (Toxic Substances Control Act) - Export Notification

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International Inventories

CAS	Chemical Name	% Weight	EINECS*	DSL - Canada*	ENCS*
64-17-5	Ethyl alcohol	25	200-578-6	Present	2-202
7733-02-0	Zinc sulfate	7.9	231-793-3	Present	1-542
64-19-7	Acetic acid	4.8	200-580-7	Present	2-688
9002-89-5	Polyvinyl alcohol	4.6	N/A	Present	6-682
56-81-5	Glycerin	1.9	200-289-5	Present	2-242; 7-338
67-56-1	Methyl alcohol	1.4	200-659-6	Present	2-201
67-63-0	Isopropyl alcohol	1.4	200-661-7	Present	2-207

* EINECS - EINECS

* DSL - Canada - Domestic Substances List (DSL)

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

16. OTHER INFORMATION

PREPARED ON

03/09/2009

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 or from contact with the above product.

End of Safety Data Sheet