



MATERIAL SAFETY DATA SHEET

Calcium Reagent

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Calcium Reagent

Synonym(s): Calcium Arsenazo III Stable Liquid Reagent

Product Use: Component of Calcium Assay (catalog # 140-20, 140-24, 140-20-91, 140-OP). For the in vitro quantitative determination of calcium in serum. For In Vitro Diagnostic Use Only.

Description: Dilute, slightly acidic, aqueous solution containing small to trace amounts of salts, surfactant, formaldehyde and an arsenic-containing compound.

Corporate Headquarters

Genzyme Corporation

500 Kendall Street
Cambridge, MA 02142
USA

Phone: 617-252-7500

Distributor

Genzyme Diagnostics

50 Gibson Drive
Kings Hill, West Malling
Kent, ME19 4AF
UK

Phone: 44 (0) 1732 220022

Manufacturer/Distributor

Genzyme Diagnostics P.E.I. Inc.

70 Watts Ave.
Charlottetown, PE C1E 2B9
CANADA

Phone: 800-332-1042

Distributor

Genzyme Diagnostics

115 Summit Drive
Exton, PA 19341
USA

Phone: 800-999-6578

Emergency Telephone Numbers

Genzyme (U.S.): 617-562-4555

CHEMTREC (U.S.): 800-424-9300

CHEMTREC (Outside U.S.): 703-527-3887

2. HAZARDS IDENTIFICATION

Precautionary Statements:

CAUTION! The chemical, physical and toxicological properties of this preparation have not been thoroughly characterized. This preparation contains formaldehyde, which causes cancer and skin sensitization (allergy). It also contains an arsenic compound. Arsenic causes skin and lung cancer. Avoid contact with eyes and skin. Do not ingest or inhale. Preparation appearance: clear, red liquid.

Routes of Exposure:

Occupational exposure routes may include eye contact, skin contact, skin absorption and inhalation.

Potential Health Effects:

Inhalation	Formaldehyde in solution readily vaporizes at room temperature into gaseous form. Formaldehyde vapor is irritating to the nasal passages and throat and causes cancer in nasal tissues.
Eye	No data available. Eye exposure may cause irritation, redness and watering.
Skin	Formaldehyde is poorly absorbed following skin contact, but is a skin irritant and a potent contact allergen. Skin exposure may cause dryness, cracking, rash and skin discoloration. Symptoms of allergic dermatitis may include itching, hives and blisters.
Ingestion	Exposure to low levels of arsenic can cause nausea, vomiting, abdominal pain, muscle cramps, abnormal heart beat, and weakness. Arsenic may damage the nervous system causing numbness and a "pins and needles" sensation.



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Potential Health Effects:

- Chronic Effects** Formaldehyde can cause nasopharyngeal cancer in humans. Prolonged or repeated skin contact may cause allergic dermatitis. Arsenic can cause skin, lung and liver cancer in humans. Chronic exposure to arsenic can cause weakness, loss of appetite and energy, hoarseness of voice, thickened skin and loss of pigment, and damage to the nervous and vascular systems.
- Target Organs** Formaldehyde: Immune system and respiratory system (nasal cancer). Arsenic: liver, skin, nervous system and vascular system.

Regulatory Status:

This preparation is classified as hazardous under U.S. OSHA 29 CFR 1910.1200; E.C. Directive 1999/45/EC; Canadian R.S. 1985, c. H-3; U.K. CHIP 2002 No. 1689; and/or U.N. GHS ST/SG/AC 10/30. Refer to Sec. 15, Regulatory Information, for details regarding hazard classification.

This preparation contains formaldehyde. Formaldehyde is classified as a human carcinogen according to EPA/IRIS, IARC, NTP, OSHA and/or ACGIH. This preparation contains Arsenazo III (an arsenic compound). Arsenic is classified as a human carcinogen according to EPA/IRIS, IARC, NTP, OSHA and/or ACGIH.

Potential Environmental Effects:

See Section 12.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS #	EC #	% (wt/wt)
Formaldehyde	50-00-0	200-001-8	< 0.1
EC R-Phrases: R40, R23/24/25, R34, R43	EC Hazard Class: T		
Arsenazo III free acid	1668-00-4	216-788-6	< 0.1
EC R-Phrases: R23/25, R45, R50/53	EC Hazard Class: T, N		

4. FIRST AID MEASURES

Inhalation:

If inhaled, move from exposure area to fresh air. Seek medical attention if breathing becomes difficult or if cough or other symptoms develop.

Eye Contact:

Immediately flush eyes with plenty of tepid water while separating eyelids with fingers, removing contact lenses if worn. Continue to flush for at least 15 minutes. Obtain medical attention if needed or if symptoms, such as redness or irritation persist.

Skin Contact:

In case of contact, immediately flush skin with copious amounts of cool water and remove contaminated clothing. Obtain medical attention if needed or if irritation or other symptoms develop.

Ingestion:

In case of ingestion, contact a poison control center or physician for instructions.

5. FIRE FIGHTING MEASURES

Flammable Properties:

Dilute aqueous solution not considered a fire hazard.



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Suitable Extinguishing Media:

Use extinguishing media suitable for surrounding fire, such as carbon dioxide, chemical foam, dry chemical or water spray.

Unsuitable Extinguishing Media:

Unknown.

Specific Hazards Arising from the Chemical:

Irritating and/or toxic gases may be emitted upon the product's decomposition.

Standard Protective Equipment and Precautions for Firefighters:

Firefighters should wear NIOSH-approved or equivalent Self-Contained Breathing Apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear Personal Protective Equipment (PPE) as indicated in Section 8. Avoid physical contact with material and avoid vapor inhalation. After handling, immediately wash any areas of the body that may have been exposed, whether or not known skin contact has occurred.

Environmental Precautions:

No information available.

Methods and Materials for Containment and Clean-Up:

Decontaminate the spill site following standard procedures. Dispose of materials in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.

7. HANDLING AND STORAGE

Handling:

Follow good laboratory hygiene practices. See Section 8, Engineering Controls. Minimize contact and contamination of personal clothing and skin. Wash hands thoroughly after handling.

Storage:

Formaldehyde is highly volatile. Tightly close the container immediately after use. Store at 18 to 26°C (64 to 79°F). Do not store with incompatible substances; see Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION



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Exposure Guidelines:

ACGIH - Threshold Limits Values - Ceilings (TLV-C)

Formaldehyde 50-00-0 0.3 ppm Ceiling

ACGIH - Threshold Limits Values - Sensitization (SEN) Notations

Formaldehyde 50-00-0 Sensitizer

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Arsenazo III free acid 1668-00-4 0.01 mg/m³ TWA

Australia - Occupational Exposure Standards - STELs

Formaldehyde 50-00-0 2 ppm STEL; 2.5 mg/m³ STEL

Australia - Occupational Exposure Standards - TWAs

Arsenazo III free acid 1668-00-4 0.05 mg/m³ TWA

Formaldehyde 50-00-0 1 ppm TWA; 1.2 mg/m³ TWA

Canada - Quebec - Occupational Exposure Limits - Ceilings

Formaldehyde 50-00-0 2 ppm Ceiling; 3 mg/m³ Ceiling

Canada - Quebec - Occupational Exposure Limits - TWAEVs

Arsenazo III free acid 1668-00-4 0.2 mg/m³ TWAEV

Germany - DFG - Recommended Exposure Limits - Ceilings (Peak Limitations)

Formaldehyde 50-00-0 0.6 ppm Peak; 0.74 mg/m³ Peak (during exposure to mixtures it should be ensured that irritant effects do not occur)

Germany - DFG - Recommended Exposure Limits - MAK Values

Formaldehyde 50-00-0 0.3 ppm MAK; 0.37 mg/m³ MAK

Israel - Occupational Exposure Limits - Ceilings

Formaldehyde 50-00-0 0.3 ppm Ceiling

Israel - Occupational Exposure Limits - TWAs

Arsenazo III free acid 1668-00-4 0.01 mg/m³ TWA

Japan - Recommended Exposure Limits - TWAs

Arsenazo III free acid 1668-00-4 3 ug/m³ OEL (reference value)

Formaldehyde 50-00-0 0.5 ppm OEL; 0.61 mg/m³ OEL

Korea - Occupational Exposure Limits - STELs

Formaldehyde 50-00-0 2 ppm STEL; 3 mg/m³ STEL

Korea - Occupational Exposure Limits - TWAs

Formaldehyde 50-00-0 1 ppm TWA; 1.5 mg/m³ TWA

U.S. - OSHA - Final PELs - Short Term Exposure Limits

Formaldehyde 50-00-0 2 ppm STEL (see 29 CFR 1910.1048)

U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Arsenazo III free acid 1668-00-4 0.5 mg/m³ TWA

Formaldehyde 50-00-0 0.75 ppm TWA

Engineering Controls:

Minimize potential for aerosolization. Handle within a containment system, with local exhaust ventilation, or with dilution ventilation at a minimum. Facilities storing or using this preparation should be equipped with an eyewash fountain.

Personal Protective Equipment (PPE):

- Respiratory** A respiratory protection program that meets U.S. Federal OSHA 29 CFR 1910.134 and ANSI Z99.2, European Standard CR 529, or other applicable regulatory standards should be followed whenever exposure limits may be exceeded (if applicable) and engineering controls are not feasible, or if insufficient ventilation or workplace conditions warrant the use of respiratory protection. In such cases, a full-facepiece respirator with formaldehyde vapor cartridges selected to provide a filtration efficiency appropriate to your workplace is recommended.
- Eye/Face** Wear appropriate protective chemical safety goggles.
- Skin** Wear appropriate protective clothing, such as a lab coat or other long-sleeved garment over clothing to minimize contact and contamination of clothing.
- Gloves** Wear chemical resistant protective gloves.
- General** Follow company-specific safety procedures.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, red liquid	pH:	5.6 at 25°C
Odor:	Unknown	Solubility:	Water-soluble
Specific Gravity:	1.01	Vapor Pressure:	Not available
Boiling Point:	Not available	Partition Coefficient (n-octanol/water):	Not available
Melting Point:	Not applicable	Vapor Density:	Not available
Freezing Point:	Not available		
Flammability/Explosivity Limits in Air, Lower:	Not available		
Flammability/Explosivity Limits in Air, Upper:	Not available		
Auto-Ignition Temperature:	Not applicable		
Flash Point:	Not available		

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under ordinary conditions of use and storage. See Section 7.

Conditions to Avoid:

There are no physical conditions known to result in a hazardous situation.

Incompatible Materials:

Unknown.

Hazardous Decomposition Products:

Thermal decomposition can lead to release of irritating gases and vapors.

Possibility of Hazardous Reactions:

Formaldehyde readily polymerizes.

11. TOXICOLOGICAL INFORMATION

Acute Effects:

Acute inhalation of formaldehyde vapor induces eye, nose and respiratory irritation. Acute dermal exposure induces skin irritation and sensitization. Symptoms of acute inorganic arsenic toxicity in humans include nausea, anorexia, vomiting, epigastric and abdominal pain, and diarrhea. Dermatitis (exfoliative erythroderma), muscle cramps, cardiac abnormalities, hepatotoxicity, bone marrow suppression and hematologic abnormalities (anemia), vascular lesions, and peripheral neuropathy have also been reported.

Toxicology Data - Selected LD50s and LC50s

Arsenazo III free acid	1668-00-4	Oral LD50 Rat: 763 mg/kg; Oral LD50 Mouse: 145 mg/kg
Formaldehyde	50-00-0	Inhalation LC50 Rat: 0.578 mg/L/4H; Inhalation LC50 Rat: 250 ppm/4H; Oral LD50 Rat: 100 mg/kg; Dermal LD50 Rabbit: 270 mg/kg

Chronic Effects:

Studies of humans chronically exposed to airborne formaldehyde concentrations in the approximate range of 0.1-1 ppm have consistently reported increased incidences of upper respiratory tract and eye irritation. General symptoms of chronic arsenic toxicity in humans are weakness, general debility and lassitude, loss of appetite and energy, loss of hair and hoarseness of voice.



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Carcinogenicity:

According to IARC, formaldehyde is carcinogenic to humans (Group 1), on the basis of sufficient evidence in humans and sufficient evidence in experimental animals. Results of the largest and most informative cohort study of industrial workers exposed to formaldehyde in the USA, supported by the largely positive findings from other studies, provided sufficient epidemiological evidence that formaldehyde causes nasopharyngeal cancer in humans. According to IARC, arsenic and arsenic compounds are carcinogenic to humans (Group 1), on the basis of sufficient evidence in humans and sufficient evidence in experimental animals.

ACGIH - Threshold Limits Values - Carcinogens

Arsenazo III free acid	1668-00-4	A1 - Confirmed Human Carcinogen
Formaldehyde	50-00-0	A2 - Suspected Human Carcinogen

Argentina - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	A2 - Suspected human carcinogen
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Australia - Occupational Exposure Standards - Carcinogens

Arsenazo III free acid	1668-00-4	confirmed carcinogen
Formaldehyde	50-00-0	probable carcinogen

Austria - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	Group B Carcinogen
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Belgium - Substances and Preparations - Suspected Carcinogens

Arsenazo III free acid	1668-00-4	present (as As)
Formaldehyde	50-00-0	Present

Canada - British Columbia - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	K1= a confirmed human carcinogen
Formaldehyde	50-00-0	ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen

Canada - Manitoba - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	A2 - Suspected Human Carcinogen
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Canada - New Brunswick - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	A2 - Suspected Human Carcinogen
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Canada - Quebec - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	C2 carcinogen - effect suspected in humans
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Denmark - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	carcinogen
Formaldehyde	50-00-0	Carcinogen

Egypt - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	Suspected Human Carcinogen
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France - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	Carcinogen category 3
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Germany - DFG - Recommended Exposure Limits - Carcinogens

Formaldehyde	50-00-0	Category 4 (no significant contribution to human cancer)
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IARC - Group 1 (Carcinogenic to Humans)

Arsenazo III free acid	1668-00-4	Supplement 7, 1987; Monograph 23, 1980; (This evaluation applies to the group of compounds as a whole and not necessarily to all individual compounds within the group)
Formaldehyde	50-00-0	Monograph 88 [2006], Monograph 62 [1995], Supplement 7 [1987]

Iceland - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	carcinogen
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Ireland - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	Category 1 Carcinogen (as As)
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Japan - Recommended Exposure Limits - Carcinogenicity Class

Formaldehyde	50-00-0	Group 2A - Probably Carcinogenic to Humans
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Netherlands - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	Workplace carcinogen
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New Zealand - Workplace Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	A1 - confirmed carcinogen
Formaldehyde	50-00-0	A2 - suspected human carcinogen



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NIOSH - Pocket Guide - Potential Occupational Carcinogens

Arsenazo III free acid	1668-00-4	occupational carcinogen
Formaldehyde	50-00-0	potential occupational carcinogen

Norway - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	K2 - medium carcinogen risk
Formaldehyde	50-00-0	Carcinogen

NTP (National Toxicology Program) - Report on Carcinogens - Reasonably Anticipated to be Human Carcinogens

Formaldehyde	50-00-0	Reasonably Anticipated To Be A Carcinogen
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South Africa - Occupational Exposure Limits - Carcinogenic Compounds

Formaldehyde	50-00-0	Suspected Human Carcinogen
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Spain - Occupational Exposure Limits - Carcinogens

Arsenazo III free acid	1668-00-4	known human carcinogen
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Sweden - Occupational Exposure Limits - Carcinogens

Formaldehyde	50-00-0	Carcinogen
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U.S. - California - Proposition 65 - Carcinogens List

Formaldehyde	50-00-0	carcinogen, initial date 1/1/88 (gas)
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U.S. - EPA - IRIS Carcinogenicity Assessment

Arsenazo III free acid	1668-00-4	Classification = A; human carcinogen; last revised = 04/10/1998; based on sufficient evidence from human data. An increased lung cancer mortality was observed in multiple human population exposed primarily through inhalation. Also, increased mortality from multiple internal organ cancers (liver, kidney, lung, and bladder) and an increased incidence of skin cancer were observed in
Formaldehyde	50-00-0	Classification: probable human carcinogen; basis: based on limited evidence in humans, and sufficient evidence in animals. Human data include nine studies that show statistically significant associations between site-specific respiratory neoplasms and exposure to formaldehyde or formaldehyde-containing products.

U.S. - Illinois - Toxic Air Contaminant Carcinogens

Arsenazo III free acid	1668-00-4	IARC Group 1 Carcinogen
Formaldehyde	50-00-0	IRIS B1 Carcinogen; NTP Suspect Carcinogen; ACGIH A2 Carcinogen; IARC Group 2A Carcinogen

U.S. - OSHA - Hazard Communication Carcinogens

Arsenazo III free acid	1668-00-4	Present
Formaldehyde	50-00-0	Present

Mutagenicity:

Formaldehyde has been demonstrated to have genotoxic properties in human and laboratory animal studies.

Teratogenicity:

Results from a human study and several animal studies indicate that formaldehyde is not a likely developmental toxicant at low levels of exposure. There is limited evidence that arsenic is a teratogen in animals.

Reproductive Effects:

Based on animal and limited epidemiology data, formaldehyde is unlikely to cause reproductive and developmental effects at exposures relevant to humans. Chronic arsenic exposure has been associated with spontaneous abortions and still births.

Neurological Effects:

The nervous system does not appear to be a major target organ for formaldehyde toxicity; however, some vague neurological symptoms may occur after inhalation exposure in humans. Exposure to arsenic has been reported to cause peripheral neuropathy (motor dysfunction, paresthesia).



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Sensitization:

Formaldehyde is widely recognized as a potent contact sensitizer that causes allergic eczematoid dermatitis in humans.

ACGIH - Threshold Limits Values - Sensitization (SEN) Notations

Formaldehyde 50-00-0 Sensitizer

Australia - Occupational Exposure Standards - Sensitizers

Formaldehyde 50-00-0 sensitiser

Canada - British Columbia - Occupational Exposure Limits - Sensitizers

Formaldehyde 50-00-0 Sensitizer

Hungary - Occupational Exposure Limits - Sensitizers

Formaldehyde 50-00-0 sensitizer

Iceland - Occupational Exposure Limits - Skin Sensitizers

Formaldehyde 50-00-0 Skin sensitizer

Japan - Recommended Exposure Limits - Sensitizers

Formaldehyde 50-00-0 Group 2 airway sensitizer; Group 1 skin sensitizer

New Zealand - Workplace Exposure Limits - Sensitizers

Formaldehyde 50-00-0 sensitizer

Norway - Occupational Exposure Limits - Sensitizers

Formaldehyde 50-00-0 Sensitizing substance

Russia - Occupational Exposure Limits - Allergenic Substances

Formaldehyde 50-00-0 Allergenic substance

Spain - Occupational Exposure Limits - Sensitizers

Formaldehyde 50-00-0 sensitizer

Sweden - Occupational Exposure Limits - Sensitizers

Formaldehyde 50-00-0 Sensitizer

Switzerland - Occupational Exposure Limits - Sensitizers

Formaldehyde 50-00-0 Sensitizer

Further Information:

ACGIH - Threshold Limits Values - Biological Exposure Indices (BEI)

Arsenazo III free acid 1668-00-4 Inorganic arsenic plus methylated metabolites in urine: 35 ug As/L, end of workweek (B)

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity - Freshwater Fish Species Data

Formaldehyde 50-00-0 96 Hr LC50 Pimephales promelas: 24.1 mg/L [flow-through];
96 Hr LC50 Lepomis macrochirus: 0.10 mg/L [flow-through];
96 Hr LC50 Brachydanio rerio: 41 mg/L [static]

Ecotoxicity - Microtox Data

Formaldehyde 50-00-0 5 min EC50 Photobacterium phosphoreum: 9.0 mg/L; 15 min EC50 Photobacterium phosphoreum: 7.26 mg/L; 25 min EC50 Photobacterium phosphoreum: 6.81 mg/L; 30 min EC50 Photobacterium phosphoreum: 16.5 mg/L; 1 Hr EC50 Vibrio harveyi: 1.2 mg/L; 5 Hr EC50 Vibrio harveyi: 3.7 mg/L; 72 Hr EC50 Colpoda aspera: 5.39 mg/L

Ecotoxicity - Water Flea Data

Formaldehyde 50-00-0 96 Hr EC50 water flea: 20 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.



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Mobility in Environmental Media:

No data available.

13. DISPOSAL CONSIDERATIONS

Methods of Disposal:

Dispose of unused product, spilled material and waste in accordance with all applicable federal, state, local and provincial environmental and hazardous waste regulations.

Waste Classification:

U.S. - California - 22 CCR - Presumed Hazardous Wastes

Formaldehyde 50-00-0 Toxic; Ignitable

U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Tox

Arsenazo III free acid 1668-00-4 waste number D004; regulatory level = 5.0 mg/L

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

Arsenazo III free acid 1668-00-4 hazardous constituent - no waste number

Formaldehyde 50-00-0 waste number U122

U.S. - RCRA (Resource Conservation & Recovery Act) - K Series Wastes - Wastes from Specified Sources

Formaldehyde 50-00-0 Toxic waste; (waste number K040); Wastewater treatment sludge from the production of phorate.

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous

Formaldehyde 50-00-0 waste number U122

14. TRANSPORT INFORMATION

Basic Shipping Description:

Not classified as dangerous goods. Not regulated per IATA and DOT regulations.



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15. REGULATORY INFORMATION

US Federal Regulations:

This preparation is a component of an FDA-regulated in vitro diagnostic device.

Inventory - United States - Section 8(b) Inventory (TSCA)

Arsenazo III free acid	1668-00-4	XU
Formaldehyde	50-00-0	Present

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Arsenazo III free acid	1668-00-4	[present] (includes any unique chemical substance that contains Arsenic as part of that chemical's infrastructure)
Formaldehyde	50-00-0	Present

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Arsenazo III free acid	1668-00-4	CERCLA statutory RQ is 1 pound (0.454 kg); no RQ is being assigned to the generic or broad class
Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Formaldehyde	50-00-0	100 lb EPCRA RQ
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Formaldehyde	50-00-0	500 lb TPQ
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Arsenazo III free acid	1668-00-4	form R reporting required for 0.1% de minimis concentration
Formaldehyde	50-00-0	0.1 % de minimis concentration

U.S. - CWA (Clean Water Act) - Priority Pollutants

Arsenazo III free acid	1668-00-4	[present]
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U.S. - EPA - ATSDR - CERCLA Priority List

Arsenazo III free acid	1668-00-4	Rank (of 275): 001
Formaldehyde	50-00-0	Rank (of 275): 247

U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(d) - Health and Safety Reporting

Formaldehyde	50-00-0	Only those chemical substances specifically listed within this category are subject to all provisions of part 716 for the time period from the effective date of the rule until the sunset date. Those chemicals are designated in the data field as belonging to this category.
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US State Regulations:

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Arsenazo III free acid	1668-00-4	[present] (Refers to any mixture containing 0.02% or greater inorganic arsenic)
Formaldehyde	50-00-0	Present



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International Regulations:

If approved for European Communities use, this product is regulated under the In Vitro Diagnostic Medical Devices Directive (98/79/EC).

Canada - CEPA - Priority Substances List

Formaldehyde 50-00-0 Priority Substance List 2 (substance considered toxic)

Canada - CEPA - Schedule I - List of Toxic Substances

Formaldehyde 50-00-0 Present

Canada - WHMIS - Classifications of Substances

Formaldehyde 50-00-0 A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated under Formol)

Canada - WHMIS - Ingredient Disclosure List

Arsenazo III free acid 1668-00-4 0.1%; English Item 130; French Item 266

Formaldehyde 50-00-0 0.1 %

EU - Dangerous Substances Directive (67/548/EEC) - Annex I - Classification

Arsenazo III free acid 1668-00-4 T N; R-23/25 R-50/53

Formaldehyde 50-00-0 Carc. Cat.3; R40 □ T; R23/24/25 □ C; R34 □ R43

EU - Dangerous Substances Directive (67/548/EEC) - Annex I - Concentration Limits

Arsenazo III free acid 1668-00-4 0.2%; T; R-23/25 □ 0.1%; Xn; R-20/22

Formaldehyde 50-00-0 25% ≤ C: T; R23/24/25-34-40-43 □ 5% ≤ C < 25%: Xn; R20/21/22-36/37/38-40-43 □ 1% ≤ C < 5%: Xn; R40-43 □ 0.2% ≤ C < 1%: Xi; R43

EU - Dangerous Substances Directive (67/548/EEC) - Annex I - Safety Phrases

Arsenazo III free acid 1668-00-4 S-1/2 S-20/21 S-28 S-45 S-60 S-61

Formaldehyde 50-00-0 S:1/2-26-36/37/39-45-51

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Formaldehyde 50-00-0 ID Number 112, hazard class 2 - hazard to waters

Inventory - Australia - Inventory of Chemical Substances (AICS)

Arsenazo III free acid 1668-00-4 Present

Formaldehyde 50-00-0 Present

Inventory - Canada - Domestic Substances List (DSL)

Arsenazo III free acid 1668-00-4 As

Formaldehyde 50-00-0 Present

Inventory - China

Arsenazo III free acid 1668-00-4 Present

Formaldehyde 50-00-0 Present

Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Arsenazo III free acid 1668-00-4 216-788-6

Formaldehyde 50-00-0 200-001-8

Inventory - Japan Existing and New Chemical Substances (ENCS)

Formaldehyde 50-00-0 2-482

Inventory - Korea - Existing and Evaluated Chemical Substances

Arsenazo III free acid 1668-00-4 KE-05-0208

Formaldehyde 50-00-0 KE-17074

Canadian Hazardous Products:

WHMIS Status Exempt

European Communities Dangerous Substances/Preparations:

EC Hazard Class None

Risk Phrases None

Safety Phrases None

16. OTHER INFORMATION



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Further Information:

This MSDS has been prepared in accordance with the ANSI Z400.1 format. Every effort has been made to adhere to the hazard criteria and content requirements of the U.S. OSHA Hazard Communication Standard, Canadian Controlled Products Regulation (CPR), UK Chemical Hazard Information and Packaging Regulations, European Communities REACH Regulation, and UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

MSDS Origination Date: February 10, 2009

Version #: 1

Revision Date: Not Applicable

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