



# MSDS

P.O. Box 329 - 802 Washington Avenue Chestertown, MD 21620 - USA

## MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

### 1. Product Identification

**Product Code:** 3875

**Product Description:** Acid-Zirconyl-SPADNS Reagent

**Manufactured By:** LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

### 2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	7647-01-0 Hydrochloric Acid	13	C 5 ppm	C 2 ppm
Yes	13520-92-8 Zirconyl Chloride, 8-Hydrate	<0.1	5 mg/cubic m as Zr	5 mg/cubic m as Zr
Yes	23647-14-5 SPADNS reagent	<0.1	N/E	N/E
No	7732-18-5 Water	to 100%		

### 3. Hazards Overview

**Primary Route Of Entry:** Skin Ingestion Inhalation

Danger! Corrosive. Can cause severe irritation or burns to eyes, skin, and lungs. Harmful or fatal if swallowed.

#### HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 2      Flammability: 0      Reactivity: 1

**Carcinogenicity:** None:

**Other Health Related Comments:**

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**Product Code:** 3875

**Product Description:** Acid-Zirconyl-SPADNS Reagent

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#### **4. First Aid Measures**

**Eye Contact:** Immediately flush with water for at least 15 minutes. Consult a physician.

**Skin Contact:** Immediately flush with water for at least 15 minutes while removing affected clothing. Wash skin with soap and water. Consult a physician.

**Ingestion:** Do not induce vomiting. Rinse mouth, drink plenty of water and call physician immediately.

**Inhalation:** Remove to fresh air. Give oxygen if breathing is difficult.

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#### **5. Fire Fighting Measures**

**Flash Point (Method Used):** N/A

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:** Not a fire hazard

**Special Fire Fighting Procedures:** N/A

**Unusual Fire & Explosion Hazard:** N/A

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#### **6. Accidental Release Measures**

Cover with sodium bicarbonate or soda ash & slaked lime mixture. Mix and carefully add water to form slurry. Scoop up neutralized slurry and wash down drain with excess water.

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#### **7. Handling & Storage**

Store in cool, dry, storage area away from such incompatible materials as metals, ammonia, or strong bases.

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## **8. Exposure Controls/Personal Protection**

### **Ventilation**

Normal

### **Protection When Handling**

Eye Protection Gloves Lab Coat

**Work/Hygenic Practices:** Use with adequate ventilation. Avoid contact with skin and clothing. Wash after handling.

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## **9. Physical & Chemical Properties**

**Appearance:** Dark Red Liquid

**Solubility In Water:** Soluble

**Odor:** slight chlorine

**pH:** <1

**Vapor Density:** Unknown

**Vapor Pressure:** Unknown

**Boiling Point:** Unknown

**Melting Point:** N/A

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## **10. Stability & Reactivity**

**Stable:** Yes

**Conditions To Avoid:** Heat, light

**Incompatibility (Materials To Avoid):** Metals, strong bases

**Hazardous Decomposition Products:** HCl gas

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## **11. Toxicological Information**

Oral Rat LD50: 900 mg/kg for hydrochloric acid

**Target Organs:** Corrosive TO ALL body parts

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**Product Code:** 3875

**Product Description:** Acid-Zirconyl-SPADNS Reagent

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## **12. Ecological Information**

Information Not Yet Available

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## **13. Disposal Considerations**

Add very slowly with stirring to a large volume of soda ash and slaked lime. Pour neutralized solution down drain with excess water. Dispose according to federal, state and local regulations.

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## **14. Transportation Information**

**Proper Shipping Name:**

**DOT:** HYDROCHLORIC ACID

**IATA:** HYDROCHLORIC ACID

**Hazard Class/Div:**

**DOT:** 8

**IATA:** 8

**UN:** 1789

**Packing Group:** II

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## **15. Regulatory Information**

### **Chemical Inventory Status**

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	7647-01-0 Hydrochloric Acid	Yes	Yes	Yes	No	Yes	Yes
Yes	13520-92-8 Zirconyl Chloride	Yes	Yes	No	No	Yes	?
Yes	23647-14-5 SPADNS reagent	Yes	Yes	Yes	No	Yes	No
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

**Federal, State, & International Regulations**

<b>Ingredient</b>	<b>--- SARA 302 ---</b>		<b>----- SARA 313 -----</b>		<b>CERCLA</b>	<b>RCRA 261.33</b>	<b>TSCA 8(D)</b>
	<b>RQ</b>	<b>TPQ</b>	<b>Listed</b>	<b>Chemical Category</b>			
7647-01-0 Hydrochloric Acid	5000	500	Yes	No	5000	No	No
13520-92-8 Zirconyl Chloride	No	No	No	No	No	No	No
23647-14-5 SPADNS reagent	No	No	No	No	No	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

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**Product Code:** 3875

**Product Description:** Acid-Zirconyl-SPADNS Reagent

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--- SARA 311/312 ---

----- Australia -----

**Hazard Categories**

**Hazchem  
Code**

**Poison  
Schedule**

**This MSDS Is  
WHMIS Compliant**

**Ingredient**    **Acute**    **Chronic**    **Fire**    **Pressure**    **Reactivity**

7647-01-0    Yes    Yes    No    No    No    2R    None Allocated  
Hydrochloric Acid

13520-92-8    Yes    Yes    No    No    No    ?    ?  
Zirconyl Chloride

23647-14-5    Yes    Yes    No    No    No    None Allocated    None Allocated  
SPADNS reagent

7732-18-5    No    No    No    No    No    None Allocated    None Allocated  
Distilled Water

**product 3875**    Yes    Yes    No    No    No    2R    Yes  
**as a whole**

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**16. Other Information**

**Prepared By:** IP, Regulatory Affairs Department

**Revised:** 4/5/2006

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# MSDS

P.O. Box 329 - 802 Washington Avenue Chestertown, MD 21620 - USA

## MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

### 1. Product Identification

**Product Code:** 4128

**Product Description:** Sodium Arsenite Solution

**Manufactured By:** LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

### 2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	7784-46-5 Sodium meta-Arsenite	0.5	10 ug/cubic m, As comp inorg.	5 ug/cubic m, action level
Yes	1310-73-2 Sodium Hydroxide	0.2	C 2 mg/cubic m	C 2 mg/cubic m
No	7732-18-5 Water	>99%		

### 3. Hazards Overview

**Primary Route Of Entry:** Skin Ingestion

May irritate skin and eyes. Harmful if swallowed; severe irritation of mouth and stomach. Ingestion may be fatal.

#### HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 3      Flammability: 0      Reactivity: 0

**Carcinogenicity:** Yes: IARC NTP OSHA

#### **Other Health Related Comments:**

Danger! Poison! Sodium Arsenite is toxic if swallowed. Other chronic hazards are present: Arsenic compounds are known human carcinogens. Listed, IARC- 2, 48, 73 (Arsenic). See Section 11.

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**Product Code:** 4128

**Product Description:** Sodium Arsenite Solution

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#### **4. First Aid Measures**

**Eye Contact:** Immediately flush with water for 15 minutes. Consult a physician.

**Skin Contact:** Immediately flush with water for 15 minutes while removing affected clothing. Wash skin thoroughly with soap and water.

**Ingestion:** Induce vomiting. Give large amounts of water. Call a doctor immediately.

**Inhalation:** Remove to fresh air.

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#### **5. Fire Fighting Measures**

**Flash Point (Method Used):** N/A

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:** Not a fire hazard

**Special Fire Fighting Procedures:** N/A

**Unusual Fire & Explosion Hazard:** N/A

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#### **6. Accidental Release Measures**

Wear gloves to mop up and collect spilled liquid. Containerize and hold for disposal as hazardous waste. Wash spill area with water.

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#### **7. Handling & Storage**

Store in tightly closed container in secure area, away from food, and such incompatible materials as strong acids, iron, and zinc (in presence of aqueous sodium arsenite solutions).

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## **8. Exposure Controls/Personal Protection**

### **Ventilation**

Normal

Use with adequate ventilation.

### **Protection When Handling**

Eye Protection Gloves Lab Coat

**Work/Hygenic Practices:** Avoid contact with skin and clothing. Wash after handling. Allow no eating or smoking when using.

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## **9. Physical & Chemical Properties**

**Appearance:** Clear Colorless Liquid

**Solubility In Water:** Soluble

**Odor:** None

**pH:** 12

**Vapor Density:** <1 (Air=1)

**Vapor Pressure:** <17 mm Hg @ 20 deg C

**Boiling Point:** Unknown

**Melting Point:** N/A

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## **10. Stability & Reactivity**

**Stable:** Yes

**Conditions To Avoid:** N/A

**Incompatibility (Materials To Avoid):** Contact with nitric acid or other strong oxidizers

**Hazardous Decomposition Products:** arsenic fumes (toxic)

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## **11. Toxicological Information**

Oral rat LD50: 41 mg/kg for sodium arsenite solid (highly toxic!) Arsenic investigated as a mutagen, tumorigen, reproductive effector (fetal toxicity)

**Target Organs:** GI System Skin

**Pre-Existing Conditions Aggravated By Exposure:** Toxic doses cause liver & kidney damage.

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**Product Code:** 4128

**Product Description:** Sodium Arsenite Solution

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**12. Ecological Information**

Information Not Yet Available

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**13. Disposal Considerations**

Do not flush waste containing arsenic to sewer. Dispose of as hazardous waste, according to federal, state and local regulations.

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**14. Transportation Information**

**Proper Shipping Name:**

**DOT:** SODIUM ARSENITE, AQUEOUS SOLUTIONS

**IATA:** SODIUM ARSENITE, AQUEOUS SOLUTION

**Hazard Class/Div:**

**DOT:** 6.1

**IATA:** 6.1

**UN:** 1686

**Packing Group:** III

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**15. Regulatory Information**

**Chemical Inventory Status**

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	7784-46-5 Sodium meta-Arsenite	Yes	Yes	Yes	No	Yes	Yes
Yes	1310-73-2 Sodium Hydroxide	Yes	Yes	Yes	No	Yes	Yes
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

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**Product Code:** 4128

**Product Description:** Sodium Arsenite Solution

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**Federal, State, & International Regulations**

<b>Ingredient</b>	<b>--- SARA 302 ---</b>		<b>----- SARA 313 -----</b>		<b>CERCLA</b>	<b>RCRA 261.33</b>	<b>TSCA 8(D)</b>
	<b>RQ</b>	<b>TPQ</b>	<b>Listed</b>	<b>Chemical Category</b>			
7784-46-5 Sodium meta-Arsenite	1	500	No	Arsenic comp	1	No	No
1310-73-2 Sodium Hydroxide	No	No	No	No	1000	No	No
7732-18-5 Distilled Water	No	No	No	No	No	No	No

---

**Product Code:** 4128

**Product Description:** Sodium Arsenite Solution

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--- SARA 311/312 ---

----- Australia -----

**Hazard Categories**

**Hazchem  
Code**

**Poison  
Schedule**

**This MSDS Is  
WHMIS Compliant**

**Ingredient**

**Acute**

**Chronic**

**Fire**

**Pressure**

**Reactivity**

7784-46-5

Yes

Yes

No

No

No

2X

None Allocated

Sodium meta-Arsenite

1310-73-2

Yes

No

No

No

Yes

2R

S6

Sodium Hydroxide

7732-18-5

No

No

No

No

No

None Allocated

None Allocated

Distilled Water

**product**

Yes

Yes

No

No

No

2X

None Allocated

Yes

**4128**

**as a whole**

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**16. Other Information**

This product contains arsenic, a chemical known to the state of California to cause cancer.

**Prepared By:** IP, Regulatory Affairs Department

**Revised:** 6/7/2006

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