

MSDS 3
Material Safety Data Sheet

Section 1 **Chemical Identification**

Catalog # / Description: Part Number 481196-F
Name: Third Reagent

Section 2 **Composition / Information on Ingredients**

CAS #: 7440-66-6
Chemical Name: Zinc >99%
Synonyms:

- Blue powder, granular zinc, zinc dust, zinc powder

Section 3 **Hazards Identification**

Precautionary Statements:

- Flammable solid. This material, like many powders, is capable of causing a dust explosion.
- If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical advice.

Section 4 **First-Aid Measures**

- If swallowed, wash out mouth with water. Call a physician or the Poison Control Center.
- In case of skin contact, flush with copious amounts of water for at least 2 minutes. Remove contaminated clothing and shoes.
- In case of contact with eyes, flush with copious amounts of water for at least 5 minutes. Call a physician.
- If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical advice.

Section 5 **Fire Fighting Measures**

Fire/Explosion Hazard:

- Dust may form a flammable/explosive mixture with air. May form explosive mixture with oxidizers.

Extinguishing Media:

- Sand or inert dry powder. Do not use water.

Section 6 **Exposure Controls / Personal Protection**

Do not get in eyes, on skin, on clothing. Keep away from children and pets. Wash hands thoroughly after handling. Use with adequate ventilation. Maintain general hygienic practices when using this product.

Section 7 **Physical and Chemical Properties**

Appearance and Odor:

Solid bluish-gray powder

Physical Properties:

- Melting Point: 419°C
- Vapor Pressure: Not Applicable
- Specific Gravity: 7,14
- Vapor Density: Not Applicable

Stability:

- Stable when stored dried and at room temperature.

Hazardous Polymerization:

- Will not occur.

Section 8 **Toxicological Information**

- Skin and eye irritation may result from intermittent exposure.
- Avoid creating dust. DO NOT breathe dust.

Section 9 **Other Information**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used ONLY as a guide. Dispose of empty bottle as normal trash. Keep away from children and pets.

NOTE: If you desire to dispose of excess reagents, follow the appropriate precautions. At no time should First Reagent, Second Reagent, and Third Reagent be mixed together in dry (powder) form!

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MSDS 4
Material Safety Data Sheet

Section 1 **Chemical Identification**

Catalog # / Description: Part Number 481196-G
Name: Arsenic Quick Strips

Section 2 **Composition / Information on Ingredients**

CAS #: 7789-47-1

Synonyms:

- Toxic ingredient is: Mercuric Bromide.

Section 3 **Hazards Identification**

Precautionary Statements:

- Toxic poison is contained in test strip pad (about 1mg / strip).
- Mercuric Bromide is reported to have an oral rat LD50 at 40mg/kg, and a dermal rat LD50 at 100mg/kg.

Section 4 **First-Aid Measures**

- If swallowed, wash out mouth with water. Call a physician or the Poison Control Center as a precaution.
- In case of skin contact, flush with copious amounts of water for at least 2 minutes. Remove contaminated clothing and shoes.
- In case of contact with eyes, flush with copious amounts of water for at least 5 minutes.
- If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical advice.

Section 5 **Fire Fighting Measures**

Not Applicable since the amount of Mercury per kit is negligible.

Section 6 **Exposure Controls / Personal Protection**

Do not expose to eyes, skin, or clothing. Keep away from children and pets. Wash hands thoroughly after handling. Maintain general hygienic practices when using this product.

Section 7 **Physical and Chemical Properties**

Appearance and Odor:

- Solid/semi-solid, white paper pad (containing Mercuric Bromide) attached to plastic strip.

Physical Properties:

- Melting Point: Not Applicable
- Vapor Pressure: Not Applicable
- Specific Gravity: Not Applicable
- Vapor Density: Not Applicable

Stability:

- Stable when stored under proper conditions.

Hazardous Polymerization:

- Will not occur.

Section 8 **Toxicological Information**

Acute Effects:

- Each strip contains about 1mg Mercuric Bromide so toxicological effect is minimal because of the amount. However, material is toxic and should be handled carefully to minimize exposure. Place all used test strips into plastic bag labeled "Used Test Strips". Dispose of used strips per environmental and regulatory requirements in your community. Wash hands after use.

Section 9 **Other Information**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used ONLY as a guide. Dispose of the used test strips as regulations require. Keep away from children and pets.

MSDS 1
Material Safety Data Sheet

Section 1 Chemical Identification

Catalog # / Description: Part Number 481297-LR
Name: First Reagent (Low Range)

Section 2 Composition / Information on Ingredients

CAS#: 87-69-4	L-Tartaric Acid	98.8%
CAS#: 7720-78-7	Iron (II) Sulfate • 7H ₂ O	0.9%
CAS#: 10101-97-0	Nickel (II) Sulfate • 6H ₂ O	0.3%

Section 3 Hazards Identification**Precautionary Statements:**

- May be irritating to eyes and nasal passages.
- Low toxicity orally, moderate toxicity intravenously.
- Tartaric Acid is reported to have an oral rabbit LD50 at 5000 mg/kg, and a dermal rat LD50 at 485 mg/kg. Tartaric Acid Reagent has minimal toxicological effect. However, inhalation may cause irritation of respiratory tract; ingestion in large amounts may cause gastrointestinal upset; skin or eye contact may cause mild irritation; prolonged exposure may cause allergic reaction. Wash hands after use.
- Iron (II) Sulfate is harmful if swallowed or inhaled. Causes irritation to skin, eyes, and respiratory tract. Affects the liver. Oral mouse LD50: 1520 mg/kg.
- Nickel Sulfate is toxic. Harmful if swallowed. Possible risk of irreversible effects. May cause sensitization by inhalation and skin contact. Possible carcinogen. Toxicity data: oral rat LD50: 264 mg/kg.

Section 4 First-Aid Measures

- If swallowed, wash out mouth with water. Call a physician or the Poison Control Center as a precaution.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes.
- In case of contact with eyes, flush with copious amounts of water for at least 15 minutes.
- If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical advice.

Section 5 Fire Fighting Measures

Not Applicable since the amount of First Reagent per kit is negligible.

Section 6 Exposure Controls / Personal Protection

Do not expose to eyes, skin, or clothing. Keep away from children and pets. Wash hands thoroughly after handling. Maintain general hygienic practices when using this product.

Section 7 Physical and Chemical Properties**Appearance and Odor:**

- Solid/semi-solid, white powder. Soluble in water.

Physical Properties:

- Melting Point: Not Applicable
- Vapor Pressure: Not Applicable
- Specific Gravity: Not Applicable
- Vapor Density: Not Applicable

Stability:

- Stable when stored under proper conditions.

Hazardous Polymerization:

- Will not occur.

Incompatibilities:

- Reacts with the rapid release of explosive Hydrogen gas when in the presence of Zinc, Silver, and/or Aluminum, and in the presence of water or moisture.

Section 8 Toxicological Information**Acute Effects:**

- Do not breathe dust! Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Section 9 Other Information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used ONLY as a guide. Keep away from children and pets. Store in a dry, cool place. Keep container tightly closed.

NOTE: If you desire to dispose of excess reagents, follow the appropriate precautions. At no time should First Reagent, Second Reagent, and Third Reagent be mixed together in dry (powder) form!

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MSDS 2
Material Safety Data Sheet

Section 1 Chemical Identification

Catalog # / Description: Part Number 481196-E
Name: Second Reagent

Section 2 Composition / Information on Ingredients

CAS#: 10058-23-8	Potassium Peroxymonosulfate	43%
CAS#: 7646-93-7	Potassium Bisulfate	23%
CAS#: 7778-80-5	Potassium Sulfate	29%
CAS#: 7727-21-1	Potassium Peroxydisulfate	3%
CAS#: 546-93-0	Magnesium Carbonate	2%

Comments: NOTE: CAS# for mixture is 70693-62-8

Section 3 Hazards Identification**Emergency Overview:**

- Physical Appearance: White, granular material
- Immediate Concerns: DANGER. CORROSIVE. Causes skin and eye damage. Wear goggles or face shield and rubber gloves when handling. May be fatal if swallowed. Irritating to nose and throat. Avoid inhalation or dust. Remove and wash contaminated clothing before reuse.

Potential Health Effects:

- Eyes: DANGER. Corrosive. Causes eye damage. Do not get in eyes.

Section 4 First-Aid Measures

EYES: If contact with eyes occurs: Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention.

SKIN: If contact with skin: Rinse off excess chemical and flush skin with cold water for at least 15 minutes. If skin irritation develops, seek medical attention.

INGESTION: If swallowed: Do not induce vomiting. Drink 12 glasses of water to dilute the stomach contents. Never give anything by mouth to an unconscious person. Call a physician immediately.

INHALATION: If inhaled: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If not breathing, give artificial respiration. Call a physician immediately.

Section 5 Fire Fighting Measures

- This product is not flammable or combustible.
- Will release oxygen when heated, intensifying a fire. Acidic mist may be present.
- Exercise caution when fighting any chemical fire.
- Extinguishing Media: Water

Section 6 Exposure Controls / Personal Protection

Do not expose to eyes, skin, or clothing. Keep away from children and pets. Wash hands thoroughly after handling. Maintain general hygienic practices when using this product.

Section 7 Physical and Chemical Properties**Appearance and Odor:**

- Solid. Granular, free-flowing solid. White.
- Odorless

Physical Properties:

- Melting Point: Not Applicable
- Vapor Pressure: Not Volatile
- Specific Gravity: 1.1 to 1.4
- Vapor Density: Not Volatile

Stability:

- Stable when stored under proper conditions.

Hazardous Polymerization:

- Will not occur.

Incompatibilities:

- Mixing with compounds containing halides or active halogens can cause release of the respective halogens if moisture is present. Mixing with cyanides can cause release of hydrogen cyanide gas. Mixing with heavy metal salts such as those of cobalt, nickel, copper, or manganese can cause decomposition with release of oxygen and heat.

Section 8 Toxicological Information**Acute Effects:**

- Skin Absorption: >11,000 mg/kg in rabbits
- Oral LD₅₀: 2,000 mg/kg (rat)
- Inhalation LC₅₀: >5 mg/l (rats) (4-hour)

Section 9 **Other Information**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used ONLY as a guide. Keep away from children and pets.