


SECTION 1: Identification

| | |
|---|--|
| Product identifier | |
| Product name | Causticity Reagent #1 |
| Product number | R-0756 |
| Recommended use and restrictions | To be used in accordance with manufacturer instructions or under the direct guidance of the manufacturer. |
| Manufacturer | Taylor Technologies, Inc. 31 Loveton Circle Sparks, MD 21152 Phone: (410) 472-4340 Emergency phone: (800) 837-8548 |

SECTION 2: Hazard(s) Identification

| | |
|---|---|
| Physical hazards | No data available |
| Health hazards | Acute toxicity, oral Category 4 |
| Environmental hazards | Not currently regulated by OSHA. For additional information, refer to section 12 of the SDS. |
| Label elements | |
| Hazard pictograms |  |
| Signal word | Warning |
| Hazard statements | Harmful if swallowed. |
| Precautionary statements | |
| Prevention | Wash skin thoroughly after handling. Do not eat, drink, or smoke when using this product. |
| Response | IF SWALLOWED: Call a physician or poison control center if you feel unwell. Rinse mouth. |
| Storage | Keep tightly capped. Store out of direct sunlight between 36°F–85°F. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazards not otherwise classified | Not applicable |

SECTION 3: Composition/Information on Ingredients

Mixture

| Chemical name | Common name and synonyms | CAS number | % w/w |
|--|-----------------------------|------------|---------|
| Water | Dihydrogen Oxide | 7732-18-5 | 80-100 |
| Barium Chloride Dihydrate | Barium Dichloride Dihydrate | 10326-27-9 | 5-10 |
| Other components below reportable levels | | | 0.01- 1 |

SECTION 4: First-Aid Measures

If inhaled

Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops. Give oxygen or artificial respiration if needed.

In case of skin contact

Immediately flush skin with plenty of water for at least 20 minutes. If clothing comes in contact with the product, the clothing should be removed and laundered before reuse. Seek medical attention if irritation develops.

In case of eye contact

Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses if present and easy to do. Continue rinsing. If symptoms persist or in all cases of concern, seek medical advice.

If swallowed

Immediately call a physician or poison control center. Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

Most important symptoms and effects, both acute and delayed

Refer to section 2 and/or section 11 of the SDS for the most important known symptoms and effects.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: Firefighting Measures**Extinguishing media**

Suitable extinguishing media Use extinguishing media appropriate for surrounding fire.
 Unsuitable extinguishing media Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Specific hazards arising from the substance or mixture

Fire hazard Not flammable
 Explosion hazard Not explosive
 Reactivity Hazardous reactions will not occur under normal conditions.
 Hazardous combustion products Barium oxides, hydrochloride gas. Other irritating fumes and smoke.

Advice for firefighters

Precautionary measures Exercise caution when fighting any chemical fire; hazardous fumes will be present.
 Firefighting equipment/instructions Use water spray or fog for cooling exposed containers.
 Protection during firefighting Do not enter fire area without proper protective equipment, including respiratory protection.
 Other information Refer to section 9 of the SDS for flammability properties.

SECTION 6: Accidental Release Measures**Personal precautions, protective equipment, and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.

Environmental precautions

Avoid discharge into drains, watercourses, or onto the ground.

Methods and material for containment and cleaning up

Ventilate the area. Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewers, basements, or confined areas. Following product recovery, flush area with water to remove residual contamination. Never return spills to original containers for reuse. Contaminated absorbent material may pose the same hazards as the spilled product. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Reference to other sections

For exposure controls and personal protection, refer to section 8 of the SDS. For waste disposal, refer to section 13 of the SDS.

SECTION 7: Handling and Storage**Personal precautions, protective equipment, and emergency procedures**

Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

Conditions for safe storage, including any incompatibilities

Keep tightly capped. Store out of direct sunlight between 36°F-85°F. Store away from incompatible materials (refer to section 10 of the SDS).

SECTION 8: Exposure Controls/Personal Protection**Occupational exposure limits****US ACGIH Threshold Limit Values**

| Components | Type | Value |
|--|------|-----------------------|
| Barium chloride dihydrate (CAS 10326-27-9) as Ba | TWA | 0.5 mg/m ³ |

US NIOSH: Pocket Guide to Chemical Hazards

| <u>Components</u> | <u>Type</u> | <u>Value</u> |
|--|-------------|-----------------------|
| Barium chloride dihydrate (CAS 10326-27-9) as Ba | TWA | 0.5 mg/m ³ |
| Barium chloride dihydrate (CAS 10326-27-9) as Ba | IDLH | 50 mg/m ³ |

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| <u>Components</u> | <u>Type</u> | <u>Value</u> |
|--|-------------|-----------------------|
| Barium chloride dihydrate (CAS 10326-27-9) as Ba | TWA | 0.5 mg/m ³ |

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure controls

| | |
|----------------------------------|---|
| Appropriate engineering controls | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eyewash facilities and emergency shower must be available when handling this product. |
| Personal protective equipment | |
| Eye/face protection | Wear appropriate chemical safety goggles if contact is likely to occur. |
| Skin protection | Wear appropriate chemical-resistant gloves and clothing if contact is likely to occur. |
| Body protection | Wear appropriate protective clothing if contact is likely to occur. |
| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers. |

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|---|----------------------------|
| Physical state | Liquid |
| Form | Liquid |
| Color | Clear, colorless |
| Odor | Odorless |
| Odor threshold | No data available |
| pH | 7.2 |
| Evaporation rate | No data available |
| Melting point | No data available |
| Freezing point | No data available |
| Initial boiling point (boiling range) | No data available |
| Flash point | No data available |
| Specific gravity | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Flammability (solid, gas) | No data available |
| Upper Flammability Limit | No data available |
| Lower Flammability Limit | No data available |
| Vapor pressure | No data available |
| Vapor density | No data available |
| Relative density | No data available |
| Solubility | Soluble in all proportions |
| Partition coefficient (n-octanol/water) | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

SECTION 10: Stability and Reactivity

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|---|---|
| Reactivity | Hazardous reactions will not occur under normal conditions. |
| Chemical stability | Stable under recommended handling and storage conditions (refer to section 7 of the SDS). |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. Do not use in areas without adequate ventilation. |
| Incompatible materials | Ammonia, halogens, oxidizing agents, sulfides. |
| Hazardous decomposition products | No hazardous decomposition products under normal conditions. |

SECTION 11: Toxicological Information

Information on toxicological effects

Likely routes of exposure are skin/eye contact and ingestion.

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|---|--|
| Most important symptoms/effects, acute and delayed | Direct skin contact may cause irritation. Symptoms may include redness and itching. Direct eye contact may cause serious irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Inhalation of mists can cause respiratory irritation. Symptoms may include coughing and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting, pain, muscular paralysis, baritosis, and diarrhea. |
| Acute toxicity | This product is classified as an acute toxicity hazard. See below for product and individual ingredient acute toxicity data. |

| Product | Species | Acute Toxicity Estimate (ATE) |
|-------------------------------------|----------------|--------------------------------------|
| Causticity Reagent #1 (CAS Mixture) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD ₅₀ | Rat | No data available |
| <i>Inhalation</i> | | |
| LC ₅₀ | Rat | >5 mg/L |
| <i>Oral</i> | | |
| LD ₅₀ | Rat | 1068 mg/kg |
| Components | Species | Acute Toxicity Data |

Barium Chloride Dihydrate (10326-27-9)

Acute

Dermal

LD₅₀

Rat

No data available

Inhalation

LC₅₀

Rat

1.5 mg/L

Oral

LD₅₀

Rat

100 mg/kg

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory sensitization No data available

Skin sensitization No data available

Germ cell mutagenicity No data available

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)

Not listed

US National Toxicology Program (NTP) Report on Carcinogens

Not listed

| | |
|---|-------------------|
| Reproductive toxicity | No data available |
| Specific target organ toxicity (single exposure) | No data available |
| Specific target organ toxicity (repeated exposure) | No data available |
| Aspiration hazard | No data available |

SECTION 12: Ecological Information

| | |
|--------------------------------------|--|
| Ecotoxicity | This product is not classified as environmentally hazardous. |
| Persistence and degradability | No data available |
| Bioaccumulative potential | No data available |
| Mobility in soil | No data available |
| Other adverse effects | Large or frequent spills can have a harmful or damaging effect on the environment. |

SECTION 13: Disposal Considerations

Collect and reclaim or dispose of in sealed containers at a licensed waste disposal site. Since emptied containers may retain product residue, follow label warnings even after container is emptied. This material and its container must be disposed of in a safe manner. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport Information

| | |
|-------------|-----------------------------------|
| DOT | Not regulated as dangerous goods. |
| IATA | Not regulated as dangerous goods. |
| IMDG | Not regulated as dangerous goods. |

SECTION 15: Regulatory Information

US federal regulations

CERCLA Hazardous Substance (40 CFR 302.4)

Not regulated

SARA 302 Extremely Hazardous Substance (40 CFR 355 Appendices A / B)

Not regulated

SARA 304 Emergency Release Notification

Not regulated

SARA 311/312 Hazardous Chemical

| <u>Chemical name</u> | <u>CAS number</u> |
|---------------------------|-------------------|
| Barium Chloride Dihydrate | 10326-27-9 |

SARA 313 (TRI reporting)

| <u>Chemical name</u> | <u>CAS number</u> |
|---------------------------|-------------------|
| Barium Chloride Dihydrate | 10326-27-9 |

TSCA Section 8(b) Chemical Inventory

All components are on the U.S. EPA TSCA Inventory list.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs)

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

Clean Water Act, Toxic and Priority Pollutants (40 CFR 401.15 and CFR 423, Appendix A)

Not regulated

Safe Drinking Water Act (SDWA)

| <u>Chemical name</u> | <u>CAS number</u> |
|---------------------------|-------------------|
| Barium Chloride Dihydrate | 10326-27-9 |

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65)

Not regulated

Massachusetts Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|---------------------------|-------------------|
| Barium Chloride Dihydrate | 10326-27-9 |

New Jersey Worker and Community Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|---------------------------|-------------------|
| Barium Chloride Dihydrate | 10326-27-9 |

Pennsylvania Worker and Community Right-to-Know Act

Not regulated

Rhode Island Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|---------------------------|-------------------|
| Barium Chloride Dihydrate | 10326-27-9 |

SECTION 16: Other Information

NFPA Rating

| | |
|---------------|-----|
| Health hazard | 2 |
| Fire hazard | 0 |
| Reactivity | 0 |
| Specific | N/A |

Disclaimer

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