1. Identification

Product identifier: Acid Starch Indicator Powder
Other means of identification:
Product code: R-0725
Recommended use: Use as directed by manufacturer for purposes directly related to water testing.
Recommended restrictions: None known
Manufacturer/Importer/Supplier/Distributor information
Manufacturer
Company name: Taylor Technologies, Inc.
Address: 31 Loveton Circle
Sparks, MD 21152
United States
Telephone: (410) 472-4340
Monday–Friday, 8:00 a.m.–4:30 p.m.
Website: www.taylortechnologies.com
E-mail: Not available
Emergency phone number: (800) 837-8548
Supplier: Refer to Manufacturer

2. Hazard(s) identification

Physical hazards: Corrosive to metals Category 1
Health hazards: Eye damage/irritation Category 1
Skin corrosion/irritation Category 1
Environmental hazards: Not currently regulated by OSHA. For additional information, refer to section 12 of the SDS.
OSHA defined hazards: This mixture does not meet the classification criteria according to OSHA HazCom 2012.
Label elements:
- Signal word: Danger
- Hazard statement: May be corrosive to metals. Causes severe skin burns and eye damage.
- Precautionary statement:
  - Prevention: Keep only in original container. Do not breathe dust. Wash skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
  - Response: Absorb spillage to prevent material damage.
  - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
  - IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water.
  - Wash contaminated clothing before reuse.
  - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
  - Immediately call a physician or poison control center.
- Storage: Store in corrosive-resistant container with a corrosive-resistant inner liner. Store locked up.
Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified

None

(HNOC)

Supplemental information

None

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfamic acid</td>
<td>Amidosulfonic acid</td>
<td>5329-14-6</td>
<td>80</td>
</tr>
</tbody>
</table>

Other components below reportable levels

4. First-aid measures

Inhalation
Move to fresh air. Give oxygen or artificial respiration if needed. Get medical attention immediately.

Skin contact
Immediately flush skin with running water for at least 20 minutes. Immediately take off all contaminated clothing. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

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. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep person under observation. Symptoms may be delayed.

Most important symptoms/effects, acute and delayed
Direct skin contact may cause corrosive skin burns, deep ulcerations, and possibly permanent scarring. Direct contact with solid may be corrosive to the eyes and may cause severe damage, including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Inhalation of dust can cause severe respiratory irritation. Symptoms may include coughing, choking, and wheezing. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus, and possibly the digestive tract. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding.

Indication of 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.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions
Firefighters should wear full protective gear. Evacuate the area promptly. Fight fire from upwind to avoid exposure to combustion products. Cool containers/tanks with water spray. Do not get water inside container. Move containers from fire area if you can do it without risk. Prevent fire-extinguishing water from contaminating surface water or the ground water system.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted

Hazardous combustion products
Sulfur oxides. Other irritating fumes and smoke.

Material name: Acid Starch Indicator Powder; R-0725
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 dust. 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.

Methods and materials for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Sweep up or vacuum up spillage and collect in suitable container for later disposal. Never return spills to original containers for reuse. For waste disposal, refer to section 13 of the SDS. 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.

Environmental precautions

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

7. Handling and storage

Precautions for safe handling

Do not breathe dust. Avoid dust formation. 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

Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (refer to section 10 of the SDS). Protect against physical damage. Use care in handling/storage.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limits noted for the ingredient(s)

Biological limit values

No biological exposure limits noted for the ingredient(s)

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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield. Provide an emergency eyewash fountain and quick-drench shower in the immediate work area.

Skin protection

Hand protection

Wear appropriate chemical-resistant gloves. Advice should be sought from glove suppliers.

Other

Wear appropriate chemical-resistant clothing.

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 fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers.

Thermal hazards

When necessary, wear appropriate thermal protective clothing.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contamination.

9. Physical and chemical properties

Appearance

Physical state

Solid

Form

Powder

Color

Off-white

Odor

Odorless

Odor threshold

Not available

pH

Not applicable

Melting point/freezing point

401°F (205°C)
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable (does not burn)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability limit, lower (%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability limit, upper (%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive limit, lower (%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive limit, upper (%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Soluble in all proportions</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**10. Stability and reactivity**

**Reactivity**

This product is stable and nonreactive under normal conditions of use, storage, and transport.

**Chemical stability**

Material is stable under normal conditions.

**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**


**Hazardous decomposition products**

Sulfur oxides. Sulfuric acid. Ammonia. Nitrogen. For hazardous combustion products, refer to section 5 of the SDS.

**11. Toxicological information**

**Information on likely routes of exposure**

- **Inhalation**
  - May cause irritation to the respiratory system
- **Skin contact**
  - Causes severe skin burns
- **Eye contact**
  - Causes serious eye damage
- **Ingestion**
  - Causes digestive tract burns

**Most important symptoms/effects, acute and delayed**

Direct skin contact may cause corrosive skin burns, deep ulcerations, and possibly permanent scarring. Direct contact with solid may be corrosive to the eyes and may cause severe damage, including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Inhalation of dust can cause severe respiratory irritation. Symptoms may include coughing, choking, and wheezing. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus, and possibly the digestive tract. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding.

### Acute toxicity

This product is not classified as an acute toxicity hazard. See below for individual ingredient acute toxicity data.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfamic acid (CAS 5329-14-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rabbit</td>
<td>Not available</td>
</tr>
<tr>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat</td>
<td>3160 mg/kg</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
- Causes severe skin burns and eye damage

**Serious eye damage/eye irritation**
- Causes serious eye damage

**Respiratory sensitization**
- Not expected to be a respiratory sensitizer

**Skin sensitization**
- Not expected to be a skin sensitizer

**Germ cell mutagenicity**
- Not expected to be mutagenic

**Carcinogenicity**
- This product is not considered to be a carcinogen by IARC, NTP, OSHA, or U.S. ACGIH.

- Not regulated

**Reproductive toxicity**
- This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity, single exposure**
- Not classified as a specific target organ toxicity – single exposure

**Specific target organ toxicity, repeated exposure**
- Not classified as a specific target organ toxicity – repeated exposure

**Aspiration toxicity**
- Not expected to be an aspiration hazard

**Chronic effects**
- Not expected to cause chronic effects

### 12. Ecological information

**Ecotoxicity**
- This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfamic acid (CAS 5329-14-6) – Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>58.8–84 mg/L, 96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14.2 mg/L, 96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
- Not available

**Bioaccumulative potential**
- Not available

**Mobility in soil**
- Not available

**Other adverse effects**
- No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions**
- Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**
- Dispose in accordance with all applicable regulations.

**Hazardous waste code**
- The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.
Waste from residues/unused products
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (refer to Disposal instructions).

Contaminated packaging
Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transportation information

DOT
UN number UN2967
UN proper shipping name Sulphamic acid
Transport hazard class(es)
Class 8
Subsidiary risk Not listed
Label(s) 8
Packing group III
Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
Special provisions IB8, IP3, TP1, TP33
Packaging exceptions 154
Packaging, non-bulk 213
Packaging, bulk 240

IATA
UN number UN2967
UN proper shipping name Sulphamic acid
Transport hazard class(es)
Class 8
Subsidiary risk Not listed
Packing group III
Environmental hazards Not listed
ERG code 8L
Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed
Cargo aircraft only Allowed

IMDG
UN number UN2967
UN proper shipping name Sulphamic acid
Transport hazard class(es)
Class 8
Subsidiary risk Not listed
Packing group III
Environmental hazards Not listed
Marine pollutant Not listed
EmS F-A, S-B
Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

DOT

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Material name: Acid Starch Indicator Powder; R-0725
SDS US
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15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

One or more components are not listed on the US EPA TSCA Inventory list.

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
  Not regulated
- CERCLA Hazardous Substance list (40 CFR 302.4)
  Not regulated
- SARA 304 Emergency release notification
  Not regulated
  Not regulated

Superfund Amendments and Reauthorization Act of 1986 (SARA)

- Hazard categories
  Immediate hazard — yes
  Delayed hazard — no
  Fire hazard — no
  Pressure hazard — no
  Reactivity hazard — no

- SARA 302 Extremely hazardous substance
  Not regulated
- SARA 311/312 Hazardous Chemical
  Not regulated
- SARA 313 (TRI reporting)
  Not regulated

Other federal regulations

- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) list
  Not regulated
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
  Not regulated
- Safe Drinking Water Act (SDWA)
  Not regulated

US state regulations

- US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
  Not regulated
- US. Massachusetts RTK - Substance List
  Not regulated
- US. New Jersey Worker and Community Right-to-Know Act
  Sulfamic acid (CAS 5329-14-6)
- US. Pennsylvania Worker and Community Right-to-Know Law
  Not regulated
- US. Rhode Island RTK
  Not regulated
- US. California Proposition 65
  California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
### International inventories

<table>
<thead>
<tr>
<th>Country(ies) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>no</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)</td>
<td>yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>no</td>
</tr>
<tr>
<td>Japan</td>
<td>Existing and New Chemical Substances (ENCS)</td>
<td>yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory of Chemicals (NZIoC)</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA)</td>
<td>yes</td>
</tr>
</tbody>
</table>

*A “yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(ies). A “no” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(ies).*

### 16. Other information, including date of preparation or last revision

**List of abbreviations**

- ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- CAA: Clean Air Act
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
- CFR: Code of Federal Regulations
- CSA: Canadian Standards Association
- DEA: Drug Enforcement Agency
- DOT: Department of Transportation
- DSL: Domestic Substances List
- EC: effective concentration
- ECL: Existing Chemicals List
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HAP: hazardous air pollutants
- HAMIS: Hazardous Materials Identification System
- HNOCC: hazards not otherwise classified
- HPA: Hazardous Products Act
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- IATA: International Air Transport Association
- IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
- ICAO: International Civil Aviation Organization
- IECSC: Inventory of Existing Chemical Substances Produced or Imported in China
- IMDG: International Maritime Dangerous Goods
- IUCCLD: International Uniform Chemical Information Database
- LC: lethal concentration
- LD: lethal dose
- MARPOL: marine pollution
- MSHA: Mine Safety and Health Administration
- NDLS: Non-Domestic Substances List
- NFPA: National Fire Protection Association
- NIOSH: National Institute of Occupational Safety and Health
- NOEC: no observable effect concentration
- NTP: National Toxicology Program
- NZIoC: New Zealand Inventory of Chemicals
- OECD: Organisation for Economic Co-operation and Development
- OEL: occupational exposure limits
- OSHA: Occupational Safety and Health Administration
- PEL: permissible exposure limits