



Be Right™

# SAFETY DATA SHEET

Issue Date 17-05-2016

Revision Date 20-Jan-2017

Version 4

Page 1 / 17

## 1. IDENTIFICATION

### Product identifier

**Product Name** Acid Digestion Vials for Low Range TOC

### Other means of identification

**Product Code(s)** 2760300

**Safety data sheet number** M01741

**UN/ID no** UN3264

### Synonyms

### Recommended use of the chemical and restrictions on use

**Recommended Use** Determination of chromium.

**Uses advised against** None.

**Restrictions on use** None.

### Details of the supplier of the safety data sheet

#### Manufacturer Address

Hach Company  
P.O.Box 389 Loveland, CO 80539 USA  
(970) 669-3050

#### Emergency telephone number

(303) 623-5716 - 24 Hour Service (515)232-2533 - 8am - 4pm CST

## 2. HAZARDS IDENTIFICATION

### Classification

#### Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                   |            |
|-----------------------------------|------------|
| Corrosive to metals               | Category 1 |
| Serious eye damage/eye irritation | Category 1 |

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

**Signal word** - Danger

Product Code(s) 2760300  
Issue Date 17-05-2016  
Version 4

Product Name Acid Digestion Vials for Low Range TOC  
Revision Date 20-Jan-2017  
Page 2 / 17



**Hazard statements**

H290 - May be corrosive to metals  
H318 - Causes serious eye damage

**Precautionary statements**

P280 - Wear eye protection/ face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/physician  
P234 - Keep only in original container  
P390 - Absorb spillage to prevent material damage  
P406 - Store in corrosive resistant aluminum container with a resistant inliner

**Other Information**

Not applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

**Synonyms**

Chemical Family Inorganic Acid.

Percent ranges are used where confidential product information is applicable.

| Chemical Name | CAS No    | Percent Range | HMRIC # |
|---------------|-----------|---------------|---------|
| Sulfuric acid | 7664-93-9 | 7 - 13%       | -       |

#### 4. FIRST AID MEASURES

##### Description of first aid measures

|   |  |
|---|--|
| <b>General advice</b>                     | IF IN EYES: Flush eyes for at least 15 minutes.  |
| <b>Eye contact</b>                        | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| <b>Skin contact</b>                       | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician.              |
| <b>Inhalation</b>                         | IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.  |
| <b>Ingestion</b>                          | IF SWALLOWED: Rinse Mouth. If symptoms persist, call a physician.  |
| <b>Self-protection of the first aider</b> | Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |

##### Most important symptoms and effects, both acute and delayed

**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Do NOT use water. Alcohol foam. Carbon dioxide. Dry chemical.

**Unsuitable extinguishing media** Do NOT use water.

##### Flammable properties

During a fire, irritating and highly toxic gases may be generated by thermal decomposition.

##### Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

**Hazardous combustion products** This material will not burn.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

**EC Notice** Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**WHMIS Notice** Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Take necessary precautions in observance of pertinent physical hazards. Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

**Emergency Response Guide Number** 154

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Absorb spillage to prevent material damage.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep/store only in original container.

**Flammability class** Not applicable

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

| Chemical Name            | ACGIH TLV                  | OSHA PEL   | NIOSH IDLH   |
|--------------------------|----------------------------|--|--|
| Sulfuric acid<br>7 - 13% | TWA: 0.2 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup><br>(vacated) TWA: 1 mg/m <sup>3</sup> | IDLH: 15 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup> |

| Chemical Name            | Alberta OEL   | British Columbia OEL       | Manitoba OEL               | New Brunswick OEL                                     | New Foundland & Labrador OEL |
|--------------------------|---|----------------------------|----------------------------|---|------------------------------|
| Sulfuric acid<br>7 - 13% | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup>   |

| Chemical Name | Northwest Territories OEL | Nova Scotia OEL | Nunavut OEL | Ontario TWA | Prince Edward Island OEL |
|---------------|---------------------------|-----------------|-------------|-------------|--------------------------|
|               |                           |                 |             |             |                          |

|                          |   |                            |   |                            |                            |
|--------------------------|---|----------------------------|---|----------------------------|----------------------------|
| Sulfuric acid<br>7 - 13% | TWA: 0.2 mg/m <sup>3</sup><br>STEL: 0.6 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup><br>STEL: 0.6 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> |
|--------------------------|---|----------------------------|---|----------------------------|----------------------------|

| Chemical Name            | Quebec OEL  | Saskatchewan OEL  | Yukon OEL   |
|--------------------------|---|---|---|
| Sulfuric acid<br>7 - 13% | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup><br>STEL: 0.6 mg/m <sup>3</sup> | STEL: 1 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup> |

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Legend** See section 16 for terms and abbreviations

**Appropriate engineering controls**

**Engineering Controls** Eyewash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear tight sealing safety goggles and/or face protection shield. Avoid contact with eyes.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear suitable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended. Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls**

Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** Liquid

**Gas Under Pressure** Not classified according to GHS criteria

**Appearance** aqueous solution  
clear      **Color** colorless

**Odor** None      **Odor threshold** No data available

| <u>Property</u>                      | <u>Values</u>   | <u>Remarks • Method</u>                     |
|--------------------------------------|---|---|
| <b>Molecular weight</b>              | No data available   |   |
| <b>pH</b>                            | < 1   |   |
| <b>Melting point/freezing point</b>  | ~ 0 °C / 32 °F  | Estimation based on theoretical calculation |
| <b>Boiling point / boiling range</b> | ~ 100 °C / 212 °F   | Estimation based on theoretical calculation |
| <b>Evaporation rate</b>              | 1 (water = 1) Estimation based on theoretical calculation |   |

Product Code(s) 2760300  
Issue Date 17-05-2016  
Version 4

Product Name Acid Digestion Vials for Low Range TOC  
Revision Date 20-Jan-2017  
Page 6 / 17

**Vapor pressure** 24.002 mm Hg / 3.2 kPa at 25 °C / 77 °F Estimation based on theoretical calculation

**Vapor density (air = 1)** 0.03 (air = 1)

**Specific gravity (water = 1 / air = 1)** 1.1 Estimation based on theoretical calculation

**Partition Coefficient (n-octanol/water)** Not applicable

**Soil Organic Carbon-Water Partition Coefficient** Not applicable

**Autoignition temperature** No data available

**Decomposition temperature** No data available

**Dynamic viscosity** ~ 1 cP (mPa s) at 20 °C / 68 °F

**Kinematic viscosity** ~ 0.909 cSt (mm<sup>2</sup>/s) at 20 °C / 68 °F

#### Solubility(ies)

##### Water solubility

| <u>Water solubility classification</u> | <u>Water solubility</u> | <u>Water Solubility Temperature</u> |
|--|-------------------------|-------------------------------------|
| Soluble                                | > 1000 mg/L             | 25 °C / 77 °F                       |

##### Solubility in other solvents

| <u>Chemical Name</u> | <u>Solubility classification</u> | <u>Solubility</u> | <u>Solubility Temperature</u> |
|----------------------|----------------------------------|-------------------|-------------------------------|
| Acid                 | Soluble                          | > 1000 mg/L       | 25 °C / 77 °F                 |

#### Other Information

**Metal Corrosivity** Classified as corrosive to metal according to GHS criteria

**GHS Metal Corrosivity Classification** Category 1, H290

**Steel Corrosion Rate** No data available

**Aluminum Corrosion Rate** No data available

**Bulk density** Not applicable

**Explosive properties** Not classified according to GHS criteria.

**Explosion data** During a fire, corrosive and toxic gases may be generated by thermal decomposition.

**Upper explosion limit** No data available

**Lower explosion limit** No data available

**Flammable properties** During a fire, irritating and highly toxic gases may be generated by thermal decomposition.

**Flammability Limit in Air**

**Upper flammability limit:** No data available

**Product Code(s)** 2760300  
**Issue Date** 17-05-2016  
**Version** 4

**Product Name** Acid Digestion Vials for Low Range TOC  
**Revision Date** 20-Jan-2017  
**Page** 7 / 17

|                                  |  |
|----------------------------------|--|
| <b>Lower flammability limit:</b> | No data available  |
| <b>Flash point</b>               | No data available  |
| <b>Method</b>                    | No information available   |
| <b>Oxidizing properties</b>      | Not classified according to GHS criteria.  |
| <b>Reactivity properties</b>     | Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria. |

## 10. STABILITY AND REACTIVITY

### Reactivity properties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

### Chemical stability

Stable under recommended storage conditions.

### Special dangers of the product

None reported

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

### Conditions to avoid

Extremes of temperature and direct sunlight. Incompatible materials.

### Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

### Hazardous Decomposition Products

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

### Explosive properties

Not classified according to GHS criteria. During a fire, corrosive and toxic gases may be generated by thermal decomposition.

**Upper explosion limit** No data available

**Lower explosion limit** No data available

### Autoignition temperature

No data available

### Sensitivity to Static Discharge

None reported

### Sensitivity to Mechanical Impact

None reported

## 11. TOXICOLOGICAL INFORMATION

Product Code(s) 2760300  
 Issue Date 17-05-2016  
 Version 4

Product Name Acid Digestion Vials for Low Range TOC  
 Revision Date 20-Jan-2017  
 Page 8 / 17

NIOSH (RTECS) Number None reported

**Information on Likely Routes of Exposure**

|  |  |
|--|--|
| <b>Product Information</b>                         | Corrosive to eyes.   |
| <b>Inhalation</b>                                  | No known effect based on information supplied.                         |
| <b>Eye contact</b>                                 | Corrosive to the eyes and may cause severe damage including blindness. |
| <b>Skin contact</b>                                | No known effect based on information supplied.                         |
| <b>Ingestion</b>                                   | No known effect based on information supplied.                         |
| <b>Aggravated Medical Conditions</b>               | Eye disorders.   |
| <b>Toxicologically synergistic products</b>        | None known.  |
| <b>Toxicokinetics, metabolism and distribution</b> | See ingredients information below.                                     |

| Chemical Name                                 | Toxicokinetics, metabolism and distribution   |
|---|---|
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | The corrosivity of sulfuric acid makes it difficult to assess its effects on metabolism. Its corrosivity is also the main contributor to acute deaths, therefore it is not classified for acute toxicity. |

**Product Acute Toxicity Data**

Oral Exposure Route No data available  
 Dermal Exposure Route No data available  
 Inhalation (Dust/Mist) Exposure Route No data available  
 Inhalation (Vapor) Exposure Route No data available  
 Inhalation (Gas) Exposure Route No data available

**Ingredient Acute Toxicity Data**

Oral Exposure Route If available, see data below

| Chemical Name                                 | Endpoint type           | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data                   |
|---|-------------------------|---------------|---------------|-----------------------|--|
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | Rat<br>LD <sub>50</sub> | 2140 mg/kg    | None reported | None reported         | IUCLID (The International Uniform Chemical Information Database) |

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route If available, see data below

| Chemical Name                                 | Endpoint type             | Reported dose | Exposure time | Toxicological effects                    | Key literature references and sources for data           |
|---|---------------------------|---------------|---------------|--|--|
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | Rat<br>LC <sub>50</sub>   | 0.510 mg/L    | None reported | None reported                            | LOLI   |
| Chemical Name                                 | Endpoint type             | Reported dose | Exposure time | Toxicological effects                    | Key literature references and sources for data           |
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | Human<br>TD <sub>Lo</sub> | 0.144 mg/L    | 5 minutes     | Lungs, Thorax, or Respiration<br>Dyspnea | RTECS (Registry of Toxic Effects of Chemical Substances) |

Inhalation (Gas) Exposure Route No data available

**Product Skin Corrosion/Irritation Data**



Test data reported below.

| Test method   | Species | Reported dose | Exposure time | Results                             | Key literature references and sources for data |
|---|---------|---------------|---------------|-------------------------------------|--|
| Organization for Economic Co-operation and Development (OECD) - Test 404: Acute Dermal Corrosion/Irritation | Rabbit  | 0.5 mL        | 4 hours       | Not corrosive or irritating to skin | Internal Data<br>Outside testing               |

**Ingredient Skin Corrosion/Irritation Data**

If available, see data below

| Chemical Name                              | Test method               | Species | Reported dose | Exposure time | Results           | Key literature references and sources for data |
|--|---------------------------|---------|---------------|---------------|-------------------|--|
| Sulfuric acid (7 - 13%)<br>CAS#: 7664-93-9 | Existing human experience | Human   | None reported | None reported | Corrosive to skin | HSDB (Hazardous Substances Data Bank)          |

**Product Serious Eye Damage/Eye Irritation Data**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

If available, see data below

| Chemical Name                              | Test method               | Species | Reported dose | Exposure time | Results           | Key literature references and sources for data |
|--|---------------------------|---------|---------------|---------------|-------------------|--|
| Sulfuric acid (7 - 13%)<br>CAS#: 7664-93-9 | Existing human experience | Human   | None reported | None reported | Corrosive to eyes | HSDB (Hazardous Substances Data Bank)          |

**Sensitization Information**

**Product Sensitization Data**

Skin Sensitization Exposure Route No data available.

Respiratory Sensitization Exposure Route No data available.

**Ingredient Sensitization Data**

Skin Sensitization Exposure Route No data available.

Respiratory Sensitization Exposure Route No data available.

**Chronic Toxicity Information**

**Product Repeat Dose Toxicity Data**

Oral Exposure Route No data available.

Dermal Exposure Route No data available.

Inhalation (Dust/Mist) Exposure Route No data available.

Inhalation (Vapor) Exposure Route No data available.

Inhalation (Gas) Exposure Route No data available.

Product Code(s) 2760300  
 Issue Date 17-05-2016  
 Version 4

Product Name Acid Digestion Vials for Low Range TOC  
 Revision Date 20-Jan-2017  
 Page 10 / 17

**Ingredient Repeat Dose Toxicity Data**

Oral Exposure Route No data available  
 Dermal Exposure Route No data available  
 Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route If available, see data below

| Chemical Name                              | Endpoint type          | Reported dose | Exposure time | Toxicological effects   | Key literature references and sources for data           |
|--|------------------------|---------------|---------------|---|--|
| Sulfuric acid (7 - 13%)<br>CAS#: 7664-93-9 | Human TC <sub>Lo</sub> | .003 mg/L     | 168 days      | Musculoskeletal<br>Changes in teeth and supporting structures | RTECS (Registry of Toxic Effects of Chemical Substances) |

Inhalation (Gas) Exposure Route No data available

| Chemical Name | CAS No    | ACGIH | IARC    | NTP   | OSHA |
|---------------|-----------|-------|---------|-------|------|
| Sulfuric acid | 7664-93-9 | A2    | Group 1 | Known | X    |

**Legend**

|  |                                  |
|--|----------------------------------|
| ACGIH (American Conference of Governmental Industrial Hygienists)                  | A2 - Suspected Human Carcinogen  |
| IARC (International Agency for Research on Cancer)                                 | Group 1 - Carcinogenic to Humans |
| NTP (National Toxicology Program)  | Known - Known Carcinogen         |
| OSHA (Occupational Safety and Health Administration of the US Department of Labor) | X - Present                      |

**Product Carcinogenicity Data** No data available

Oral Exposure Route No data available  
 Dermal Exposure Route No data available  
 Inhalation (Dust/Mist) Exposure Route No data available  
 Inhalation (Vapor) Exposure Route No data available  
 Inhalation (Gas) Exposure Route No data available

**Ingredient Carcinogenicity Data**

Oral Exposure Route No data available  
 Dermal Exposure Route No data available  
 Inhalation (Dust/Mist) Exposure Route No data available  
 Inhalation (Vapor) Exposure Route No data available  
 Inhalation (Gas) Exposure Route No data available

**Product Germ Cell Mutagenicity *in vitro* Data**  
 No data available.

**Ingredient Germ Cell Mutagenicity *in vitro* Data** If available, see data below

| Chemical Name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and |
|---------------|------|-------------|---------------|---------------|---------|-------------------------------|
|---------------|------|-------------|---------------|---------------|---------|-------------------------------|

|   |                         |               |          |                  |  |  |
|---|-------------------------|---------------|----------|------------------|--|--|
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | Cytogenetic<br>analysis | Hamster ovary | 4 mmol/L | None<br>reported | Positive test result for<br>mutagenicity | <b>sources for data</b><br>OECD<br>(Organization for<br>Economic<br>Co-operation and<br>Development) |
|---|-------------------------|---------------|----------|------------------|--|--|

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

**Ingredient Germ Cell Mutagenicity *in vivo* Data**

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

**Ingredient Reproductive Toxicity Data**

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route If available, see data below

| Chemical Name                                 | Endpoint type              | Reported dose | Exposure time | Toxicological effects   | Key literature references and sources for data                      |
|---|----------------------------|---------------|---------------|---|---|
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | Rabbit<br>TC <sub>Lo</sub> | .02 mg/L      | 7 hours       | Specific Developmental<br>Abnormalities<br>Musculoskeletal system | OECD (Organization for<br>Economic Co-operation and<br>Development) |

Inhalation (Gas) Exposure Route No data available

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** Based on the classification principles, not classified as hazardous to the environment.

**Product Ecological Data**

**Product Code(s)** 2760300  
**Issue Date** 17-05-2016  
**Version** 4

**Product Name** Acid Digestion Vials for Low Range TOC  
**Revision Date** 20-Jan-2017  
**Page** 12 / 17

**Aquatic toxicity**

**Fish** No data available

**Crustacea** No data available

**Algae** No data available

**Terrestrial toxicity**

**Soil** No data available

**Vertebrates** No data available

**Invertebrates** No data available

**Ingredient Ecological Data**

**Aquatic toxicity**

**Fish** If available, see ingredient data below

| Chemical Name                              | Exposure time | Species                    | Endpoint type    | Reported dose | Key literature references and sources for data                   |
|--|---------------|----------------------------|------------------|---------------|--|
| Sulfuric acid (7 - 13%)<br>CAS#: 7664-93-9 | 96 hours      | <i>Lepomis macrochirus</i> | LC <sub>50</sub> | > 16 mg/L     | IUCLID (The International Uniform Chemical Information Database) |

**Crustacea** If available, see ingredient data below

| Chemical Name                              | Exposure time | Species                | Endpoint type    | Reported dose | Key literature references and sources for data                   |
|--|---------------|------------------------|------------------|---------------|--|
| Sulfuric acid (7 - 13%)<br>CAS#: 7664-93-9 | 48 hours      | <i>Crangon crangon</i> | EC <sub>50</sub> | > 70 mg/L     | IUCLID (The International Uniform Chemical Information Database) |

**Algae** No data available

**Terrestrial toxicity**

**Soil** No data available

**Vertebrates** No data available

**Invertebrates** No data available

**Other Information**

**Persistence and degradability**  
None known.

**Product Biodegradability Data**  
No data available.

**Ingredient Biodegradability Data**  
No data available

**Bioaccumulation**  
None known.

**Product Code(s)** 2760300  
**Issue Date** 17-05-2016  
**Version** 4

**Product Name** Acid Digestion Vials for Low Range TOC  
**Revision Date** 20-Jan-2017  
**Page** 13 / 17

**Product Bioaccumulation Data** No data available.

**Ingredient Bioaccumulation Data** No data available

**Additional information**

**Product Information**

**Partition Coefficient (n-octanol/water)** Not applicable

**Ingredient Information**

**Mobility**

Mobility in soil: High mobility. If available, see ingredient data below.

**Product Information**

**Soil Organic Carbon-Water Partition Coefficient** Not applicable

**Ingredient Information** No data available

**Additional information**

**Water solubility**

**Product Information**

| <b><u>Water solubility classification</u></b> | <b><u>Water solubility</u></b> | <b><u>Water Solubility Temperature</u></b> |
|---|--------------------------------|--|
| Soluble                                       | > 1000 mg/L                    | 25 °C / 77 °F                              |

**Ingredient Information**

| <b>Chemical Name</b>             | <b>Water solubility classification</b> | <b>Water solubility</b> | <b>Water solubility temperature °C</b> | <b>Water solubility temperature °F</b> |
|----------------------------------|--|-------------------------|--|--|
| Sulfuric acid<br>CAS#: 7664-93-9 | Soluble                                | > 1000 mg/L             | 25 °C                                  | 77 °F                                  |

**Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**US EPA Waste Number** D002

**Special instructions for disposal** Work in an approved fume hood. Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium

Product Code(s) 2760300  
Issue Date 17-05-2016  
Version 4

Product Name Acid Digestion Vials for Low Range TOC  
Revision Date 20-Jan-2017  
Page 14 / 17

bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

#### 14. TRANSPORT INFORMATION

##### DOT

|                                 |   |
|---------------------------------|---|
| UN/ID no                        | UN3264                                      |
| Proper shipping name            | Corrosive Liquid, Acidic, Inorganic, N.O.S. |
| DOT Technical Name              | (<45% Sulfuric Acid solution)               |
| Hazard Class                    | 8   |
| Packing Group                   | III   |
| Emergency Response Guide Number | 154   |

##### TDG

|                      |   |
|----------------------|---|
| UN/ID no             | UN3264                                      |
| Proper shipping name | Corrosive Liquid, Acidic, Inorganic, N.O.S. |
| TDG Technical Name   | (<45% Sulfuric Acid solution)               |
| Hazard Class         | 8   |
| Packing Group        | III   |

##### IATA

|                      |   |
|----------------------|---|
| UN/ID no             | UN3264                                      |
| Proper shipping name | Corrosive Liquid, Acidic, Inorganic, N.O.S. |
| IATA Technical Name  | (<45% Sulfuric Acid solution)               |
| Hazard Class         | 8   |
| Packing Group        | III   |
| ERG Code             | 154   |

##### IMDG

|                     |                               |
|---------------------|-------------------------------|
| UN/ID no            | UN3264                        |
| IMDG Technical Name | (<45% Sulfuric Acid solution) |
| Hazard Class        | 8                             |
| Packing Group       | III                           |

**Note:** No special precautions necessary.

##### **Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following: UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III. If the item is not regulated, the Chemical Kit classification does not apply.

#### 15. REGULATORY INFORMATION

##### National Inventories

|          |          |
|----------|----------|
| TSCA     | Complies |
| DSL/NDSL | Complies |

TSCA- United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL- Canadian Domestic Substances List/Non-Domestic Substances List

##### International Inventories

|               |          |
|---------------|----------|
| EINECS/ELINCS | Complies |
| ENCS          | Complies |
| IECSC         | Complies |
| KECL          | Complies |
| PICCS         | Complies |
| TCSI          | Complies |
| AICS          | Complies |

Product Code(s) 2760300  
 Issue Date 17-05-2016  
 Version 4

Product Name Acid Digestion Vials for Low Range TOC  
 Revision Date 20-Jan-2017  
 Page 15 / 17

NZIoC Complies

**EINECS/ELINCS**- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS**- Japan Existing and New Chemical Substances  
**IECSC**- China Inventory of Existing Chemical Substances  
**KECL**- Korean Existing and Evaluated Chemical Substances  
**PICCS**- Philippines Inventory of Chemicals and Chemical Substances  
**TCSI**- Taiwan Chemical Substances Inventory  
**AICS**- Australian Inventory of Chemical Substances  
**NZIoC**- New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name                    | SARA 313 - Threshold Values % |
|----------------------------------|-------------------------------|
| Sulfuric acid (CAS #: 7664-93-9) | 1.0                           |

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute health hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire hazard                       | No  |
| Sudden release of pressure hazard | No  |
| Reactive Hazard                   | No  |

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name              | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sulfuric acid<br>7664-93-9 | 1000 lb                     | -                      | -                         | X                          |

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical Name              | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|----------------------------|--------------------------|----------------|---|
| Sulfuric acid<br>7664-93-9 | 1000 lb                  | 1000 lb        | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**U.S. - DEA (Drug Enforcement Administration) List I & List II**

| Chemical Name                                 | U.S. - DEA (Drug Enforcement Administration) - List I or Precursor Chemicals | U.S. - DEA (Drug Enforcement Administration) - List II or Essential Chemicals                            |
|---|--|--|
| Sulfuric acid<br>(7 - 13%)<br>CAS#: 7664-93-9 | Not Listed   | 50 gallon Export Volume (exports, transshipments and international transactions to designated countries) |

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

Product Code(s) 2760300  
 Issue Date 17-05-2016  
 Version 4

Product Name Acid Digestion Vials for Low Range TOC  
 Revision Date 20-Jan-2017  
 Page 16 / 17

**U.S. State Right-to-Know Regulations**

| Chemical Name              | New Jersey | Massachusetts | Pennsylvania |
|----------------------------|------------|---------------|--------------|
| Sulfuric acid<br>7664-93-9 | X          | X             | X            |

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**Additional information**

Global Automotive Declarable Substance List (GADSL)  
 Not applicable

Special Comments  
 None

**NFPA and HMIS Classifications**

|      |                    |                  |                      |   |
|------|--------------------|------------------|----------------------|---|
| NFPA | Health hazards - 3 | Flammability - 0 | Instability - 0      | Physical and Chemical Properties -                              |
| HMIS | Health hazards - 3 | Flammability - 0 | Physical hazards - 0 | Personal protection - X<br>- See section 8 for more information |

**Key or legend to abbreviations and acronyms used in the safety data sheet**

NIOSH IDLH *Immediately Dangerous to Life or Health*  
 ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)  
 NDF *no data*

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|      |                                 |         |   |
|------|---------------------------------|---------|---|
| TWA  | TWA (time-weighted average)     | STEL    | STEL (Short Term Exposure Limit)  |
| MAC  | Maximum Allowable Concentration | Ceiling | Ceiling Limit Value   |
| X    | Listed                          | Vacated | These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations. |
| SKN* | Skin designation                | SKN+    | Skin sensitization  |
| RSP+ | Respiratory sensitization       | **      | Hazard Designation  |
| C    | Carcinogen                      | R       | Reproductive toxicant   |
| M    | mutagen                         |         |   |

Prepared By Hach Product Compliance Department

Issue Date 17-05-2016



**Product Code(s)** 2760300  
**Issue Date** 17-05-2016  
**Version** 4

**Product Name** Acid Digestion Vials for Low Range TOC  
**Revision Date** 20-Jan-2017  
**Page** 17 / 17

**Revision Date** 20-Jan-2017

**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

**HACH COMPANY©2016**

**End of Safety Data Sheet**

