1. IDENTIFICATION

Product identifier
Product Name BART™ Tester, Sulfate-Reducing Bacteria

Other means of identification
Product Code(s) 2432409

Safety data sheet number M02911

Recommended use of the chemical and restrictions on use
Recommended Use Laboratory reagent.
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 +1(970) 669-3050

Emergency telephone number
+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Hazard statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

Other Hazards Known
Causes mild skin irritation
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS
4. FIRST AID MEASURES

Description of first aid measures

General advice
No hazards which require special first aid measures. Use first aid treatment according to the nature of the injury.

Inhalation
Remove to fresh air.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms
See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products
No information available.

Special protective equipment for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout 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.
Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation.

Environmental precautions
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.

Methods for cleaning up
Pick up and transfer to properly labeled containers.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections
See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Flammability class
Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection
Wear suitable gloves.

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
No special protective equipment required.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.
9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
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<td></td>
</tr>
<tr>
<td>Appearance</td>
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<td></td>
</tr>
<tr>
<td>Odor</td>
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<td></td>
</tr>
<tr>
<td>Color</td>
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<td></td>
</tr>
<tr>
<td>Odor threshold</td>
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<td></td>
</tr>
<tr>
<td>Molecular weight</td>
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<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
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<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity (water = 1 / air = 1)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
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<td></td>
</tr>
<tr>
<td>Soil Organic Carbon-Water Partition Coefficient</td>
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<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
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<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
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<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
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<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
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</table>

Solubility(ies)

Water solubility

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
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</thead>
<tbody>
<tr>
<td>No information available</td>
<td>No data available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Solubility in other solvents

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Solubility classification</th>
<th>Solubility</th>
<th>Solubility Temperature</th>
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</thead>
<tbody>
<tr>
<td>None reported</td>
<td>No information available</td>
<td>No data available</td>
<td>No information available</td>
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Other Information

Metal Corrosivity

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<thead>
<tr>
<th>Steel Corrosion Rate</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Corrosion Rate</td>
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</tr>
</tbody>
</table>

Volatile Organic Compounds (VOC) Content
10. STABILITY AND REACTIVITY

Reactivity
Not applicable.

Chemical stability
Stability Stable under normal conditions.

Explosion data
Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions
Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization
None under normal processing.

Conditions to avoid
Conditions to avoid None known based on information supplied.

Incompatible materials
Incompatible materials Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Product Information
Inhalation
No known effect based on information supplied.

Eye contact
No known effect based on information supplied.

Skin contact
No known effect based on information supplied.

Ingestion
No known effect based on information supplied.

Symptoms
No information available.

Aggravated Medical Conditions

Toxicologically synergistic products
None known.

Toxicokinetics, metabolism and distribution
See ingredients information below.

### Product Acute Toxicity Data

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Vapor) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Gas) Exposure Route</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### Unknown Acute Toxicity
0% of the mixture consists of ingredient(s) of unknown toxicity.

### Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document.

<table>
<thead>
<tr>
<th>ATE</th>
<th>Value</th>
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</thead>
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<tr>
<td>ATEmix (oral)</td>
<td>14,981.00 mg/kg</td>
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<tr>
<td>ATEmix (dermal)</td>
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</tr>
<tr>
<td>ATEmix (inhalation-dust/mist)</td>
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</tr>
<tr>
<td>ATEmix (inhalation-vapor)</td>
<td>No information available</td>
</tr>
<tr>
<td>ATEmix (inhalation-gas)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

### Ingredient Acute Toxicity Data

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Inhalation (Vapor) Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Inhalation (Gas) Exposure Route</td>
<td>If available, see data below</td>
</tr>
</tbody>
</table>

### Product Specific Target Organ Toxicity Single Exposure Data

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
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</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Vapor) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Gas) Exposure Route</td>
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</tr>
</tbody>
</table>

### Ingredient Specific Target Organ Toxicity Single Exposure Data

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Inhalation (Vapor) Exposure Route</td>
<td>If available, see data below</td>
</tr>
<tr>
<td>Inhalation (Gas) Exposure Route</td>
<td>If available, see data below</td>
</tr>
</tbody>
</table>

### Aspiration toxicity

EN / AGHS

Page 6 / 12
No data available

Product Skin Corrosion/Irritation Data
No data available.

Ingredient Skin Corrosion/Irritation Data
If available, see data below

Product Serious Eye Damage/Eye Irritation Data
No data available.

Ingredient Eye Damage/Eye Irritation Data
If available, see data below

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 If available, see data below.
Respiratory Sensitization Exposure Route If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose 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 Specific Target Organ Toxicity Repeat Exposure Data
Oral Exposure Route If available, see data below
Dermal Exposure Route If available, see data below
Inhalation (Dust/Mist) Exposure Route If available, see data below
Inhalation (Vapor) Exposure Route If available, see data below
Inhalation (Gas) Exposure Route If available, see data below

Product 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

Ingredient Carcinogenicity Data

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Components</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend

ACGIH (American Conference of Governmental Industrial Hygienists) Does not apply
IARC (International Agency for Research on Cancer) Does not apply
NTP (National Toxicology Program) Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor) Does not apply

Oral Exposure Route If available, see data below
Dermal Exposure Route If available, see data below
12. ECOLOGICAL INFORMATION

Ecotoxicity

Product Ecological Data

Aquatic toxicity

Fish
Crustacea
Algae

Ingredient Ecological Data

Aquatic toxicity

Fish
Crustacea
Algae

Other Information

Persistence and degradability
Product Biodegradability Data
No data available.

Ingredient Biodegradability Data

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Test method</th>
<th>Biodegradation</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipotassium phosphate</td>
<td>Inorganic Salt</td>
<td>None reported</td>
<td>None reported</td>
<td>Not readily biodegradable</td>
</tr>
<tr>
<td>(3 - 7%) (CAS#: 7758-11-4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonium chloride</td>
<td>None reported</td>
<td>None reported</td>
<td>None reported</td>
<td>Readily biodegradable</td>
</tr>
<tr>
<td>(3 - 7%) (CAS#: 12125-02-9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bioaccumulation

Product Bioaccumulation Data
No data available.

Partition Coefficient (n-octanol/water) No data available

Ingredient Bioaccumulation Data

Mobility

Soil Organic Carbon-Water Partition Coefficient No data available

Water solubility

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>No information available</td>
<td>No data available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

U.S. DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG
Not regulated

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
Does not comply
TCSI
Complies
AICS
Does not comply
NZIoC
Does not comply

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

SARA 311/312 Hazard Categories

Acute health hazard
Yes
Chronic Health Hazard
No
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)

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

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

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

Special Comments
None

Additional information

Global Automotive Declarable Substance List (GADSL)
Not applicable

NFPA and HMIS Classifications

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>HMIS</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NIOSH IDLH</th>
<th>Immediately Dangerous to Life or Health</th>
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</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH (American Conference of Governmental Industrial Hygienists)</td>
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<tr>
<td>NDF</td>
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</tr>
</tbody>
</table>

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
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.

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End of Safety Data Sheet