



PATHWAYS

2016
Sustainability
Report

Buckman

A photograph of a wooden boardwalk made of weathered planks, winding through a field of tall green grass and wildflowers. The boardwalk leads from the bottom right towards the top left, disappearing into the distance. The surrounding vegetation is dense and vibrant green, with some small yellow flowers visible. The lighting is natural, suggesting a sunny day.

At Buckman, we know that when it comes to sustainability, we've got to do more than "talk the talk". So whether it's on the trails of environmental stewardship, down the halls of financial responsibility, up the steps of human rights or on the bridge to social advancement, Buckman "walks the walk." Taking the steps necessary to thrive for the long term. To protect the planet. To create new opportunity. And to make a positive, lasting impact on customers and communities around the world.

Put on your walking shoes and join us. See all the ways we're striving to make a big difference, one step at a time.

Buckman

Commitment makes the best chemistry.

Contents

The following is our **2016 Sustainability Report**, which adheres to the stringent requirements of the Global Reporting Initiative. By measuring how our operations affect others and the planet as a whole and by striving to be transparent about our sustainability goals and our progress toward meeting them, we believe we can be a better company and build stronger relationships with the industries we serve.



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Every milestone we reach has far-reaching benefits.

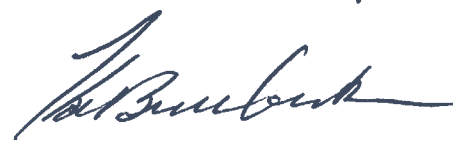
At Buckman, we often refer to the “path to sustainability.” That’s because becoming more sustainable is an ongoing journey. Each milestone we reach, whether it’s an emissions standard, a new safety measure, or a new outreach initiative, results in a profound benefit for our business, our customers, our communities, or our ecology. We’re a global company, so our pathways to sustainability encircle the world. That’s why, for this year’s report, we have adopted the G4 format prescribed by the Global Reporting Initiative. It has made us focus on what’s important to all our stakeholders, whether they are customers in South Africa, suppliers in the United States, or associates in China. It has made us take a fresh look at how we engage with stakeholders at all levels, giving us the insight to make the most of that engagement and keep the lines of communication open.

The health of our employees has a direct bearing on the general health of the company, the robustness of our service delivery, and the productivity of our entire operation. Accordingly, we’ve been making a special effort to improve safety on the job. You’ll see that we are achieving real results, too, doing what it takes to make sure employees return home

as safe and healthy as they arrived for work. As part of this overall effort, we’re working to reduce risk for our associates and customers by improving the risk profile of our products, our manufacturing protocols and the handling and application of our products in all the industries we serve.

On the environmental path, you’ll see that we have set new reduction targets for emissions, waste, energy and water consumption, as our previous targets expired in 2015. We will be comparing our present and future results on the baseline set in that year.

Throughout this report you will see many triumphs. You will also see where our challenges lie, milestones in the distance but very much in our sights. Every pathway we take inspires us to see what’s over the next horizon and provides enough incentive and reward along the way to keep us going, to keep us striving to do our best for our people and our planet, and to keep us committed to creating chemistries and enzymatic technologies that can have a positive, transformative impact on lives across the globe.



Kathy Buckman Gibson
Chairman of the Board of Directors



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Company Profile

Bulab Holdings, Inc., through its principal company, Buckman Laboratories International, Inc., is a privately-owned corporation that provides advanced chemistries and the application of those chemistries to help a wide variety of industries worldwide clean and clarify heating and cooling waters, industrial process waters and wastewaters. We provide specialized technologies that aid in leather processing, such as microorganism control programs. And we provide solutions that enhance production and product quality in the pulp and papermaking industry. For all of these industries, we provide innovative products and services that help save energy, save water,

increase production efficiency, increase recycling and reuse opportunities and reduce environmental impact. Additionally, we provide a variety of freestanding performance chemicals that enhance either the performance of products or the manufacturing of those products.

Additional industries we serve include power generation, oil and gas, ethanol, sugar, paint, coatings and plastics, metalworking, agriculture, lumber and biofuels. Brands include Bulab®, Busperse®, Busan®, Maximize®, Optimize®, WSCP®, Buckman OnSite® and Oxamine®, among many others.

Geographic Coverage

WE CONDUCT
BUSINESS IN
90
COUNTRIES

Corporate Headquarters
Memphis, Tennessee

NORTH AMERICA

LATIN AMERICA

EUROPE
MIDDLE EAST
NORTH AFRICA

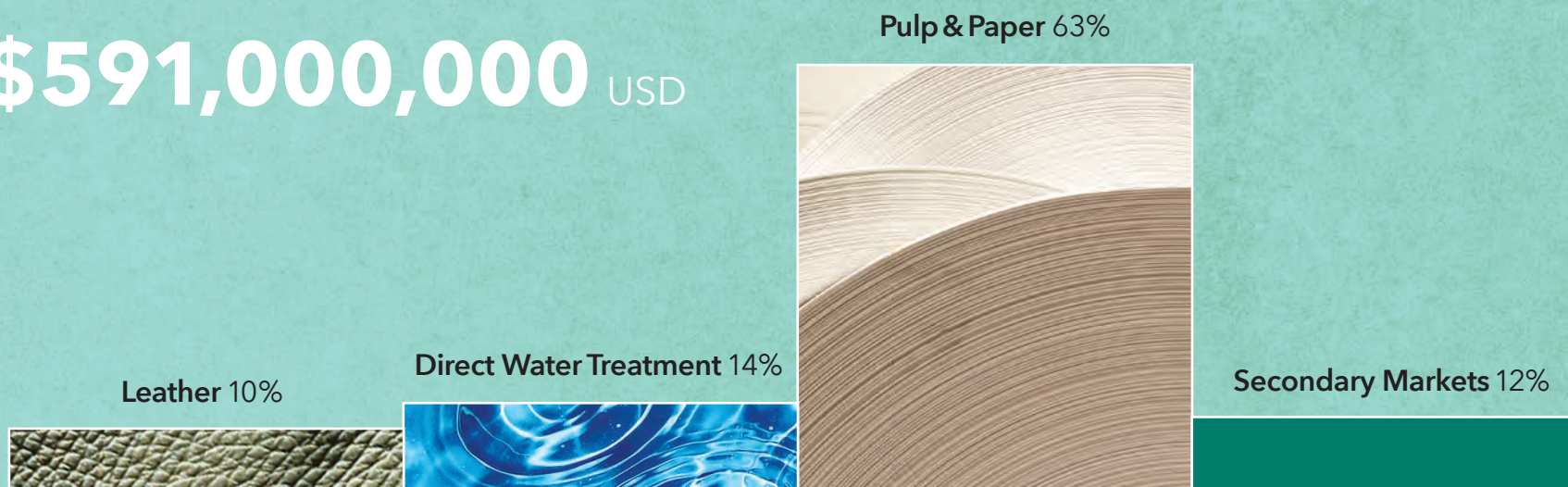
CHINA

SUB-SAHARAN
AFRICA

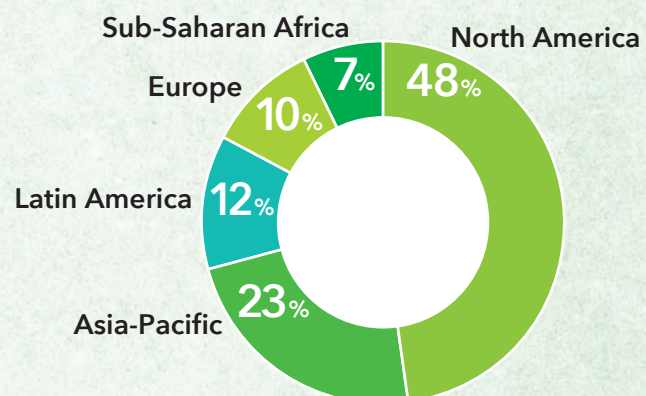
ASIA-PACIFIC

See page 36 in Appendix C (indicator G4-6) for a list of manufacturing facilities.

2016 Net Sales

\$591,000,000 USD

2016 Sales by Geographic Region



2016 Equity

\$221,266,000 USD

2016 Debt

\$32,371,000 USD

Mapping Our Way

BUCKMAN IS COMMITTED TO TRANSPARENCY in our reporting and to continuously improving the processes for sustainability management and performance. We use a cross-functional **Corporate Sustainability Project Team** for accountability and oversight in the preparation of this report and a management software program to track and oversee our progress towards our stated goals.

Quantitative data is entered by each operating facility, which allows us to monitor, track and identify opportunities at both the local and global level. No GRI sector standard exists for the chemicals industry. However, we attempt to provide the best possible disclosures based on the nature of our global business and the related risks and opportunities.



ON THE HIGH ROAD
OF STAKEHOLDER
ENGAGEMENT

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Keeping in Step with Customers, Associates, Communities and Partners

Buckman has a long history of engaging and responding to stakeholders through formal and informal channels. We have developed a stakeholder engagement policy and guidelines to enhance the process based on principles that demonstrate our organizational commitment to sustainable growth and development. The guidelines for stakeholder engagement to support Buckman's sustainability efforts are based on the **GRI G4 Guidelines**, as well as the **AA1000SES Stakeholder Standard** developed by the AccountAbility Institute for Social and Ethical Accountability.

Given the diversity of the Company and the global locations in which we operate, many engagement activities occur at the local level. However, there are a number that are standard across the Company.

Buckman began reporting our sustainability performance following the GRI G3 reporting guidelines in 2010. The report was built on several years of environmental, health and safety disclosures and reporting. Much of the data in our 2016 report reflects sustainability results and activities during the 2015-2016 fiscal years. For this report, we follow formal GRI G4 reporting guidelines to provide stakeholders with the data and perspective to understand and evaluate our performance, impacts and opportunities. Buckman is committed to transparency in our reporting and continuous improvement processes for sustainability management and performance.

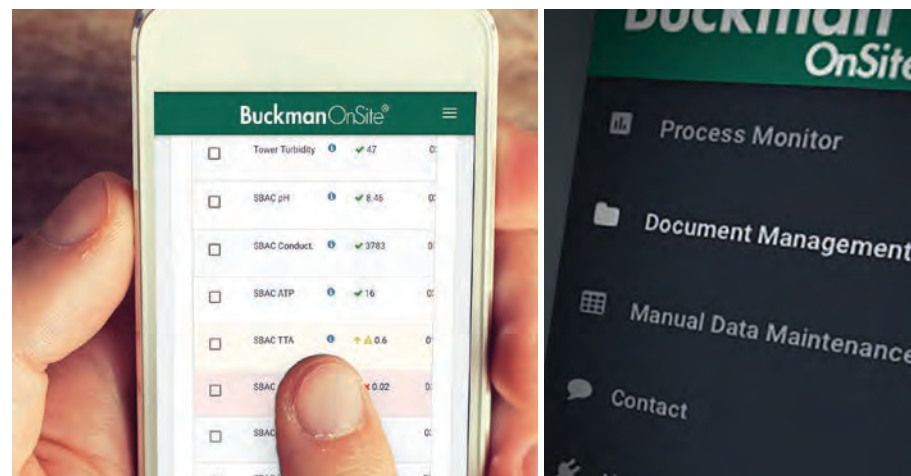
Our cross-functional Corporate Sustainability Project Team ensures accountability and oversees the preparation of this report. Since there is no GRI sector standard for our industry, we rely on a management software program and data entered by each operating facility. Throughout the entire process, we take into consideration the information needs of:

- Our associates and prospective associates through intercompany surveys
- Customers, seeking sustainable products and technology solutions and information about our sustainability policies and practices
- Communities, wanting to understand our sustainability management and engagement efforts as a responsible corporate citizen
- Suppliers, whom we expect to abide by our Code of Conduct and who are critical to our operations
- Other stakeholders, who have an interest in our industry and operations

Customers

Customer engagement practices include:

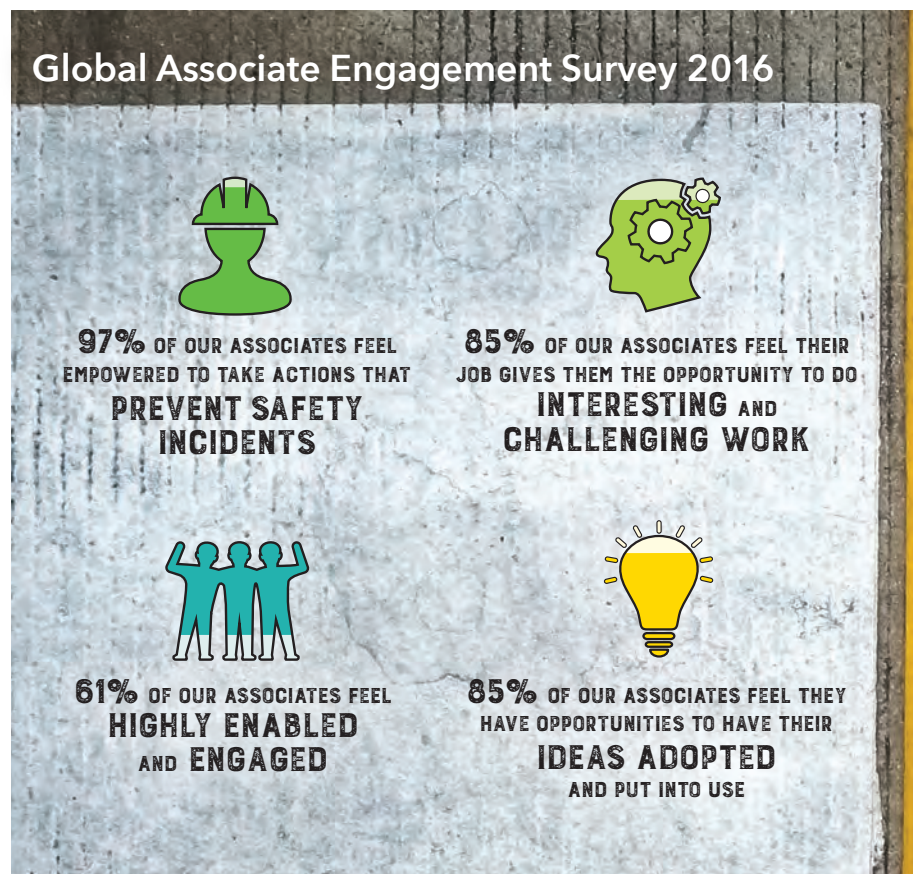
- Maintaining specialized cross-organizational teams to lead and manage our relationships with **Global Key Corporate Accounts (GKCAs)** and **Key Corporate Accounts (KCAs)**. This focused approach enables us to identify unique interests and needs with our customers.
- A **Customer Satisfaction Survey (CSS)** to identify needs and develop a plan to address them.
- Utilization of our **Sustainability Calculator within our Green Toolbox** to help identify the **Customer Sustainability Index (CSI)** and **Return on Environment (ROE)** for key customers. Industry-specific newsletters with topics relating to sustainability are developed and distributed to customers.
- Implementation of **Buckman OnSite®**, our customer portal and data dashboard, which gives customers and their service representatives the power to see operations like never before. Customers can use it to access vital, timely intelligence, such as automated controller data, manually entered information and safety data sheets. Buckman representatives can use it to efficiently manage documents and quickly create comprehensive reports for their customers, complete with graphical interpretations. With the insight Buckman OnSite provides, customers can easily monitor their own success and the value Buckman brings to it.
- Face-to-face discussions with key customers to better understand sustainability issues that are most important to them. We also leverage the **Supplier Sustainability Questionnaire** process requested by customers to gather additional information.



Associates

Associates are a key stakeholder group and their voice in guiding the organization is well-respected.

Our **Global Associate Engagement Survey**, which is administered every two years, is used to measure associate engagement and empowerment. The survey is administered in 12 languages to ensure associates have the opportunity to share their insights and opinions in their first language.



The survey results are compared against previous Buckman associate surveys, external companies within the local geography and a “high performing company” benchmark. The results from this survey also provide insight into material aspects relevant to our associates. Issues raised by associates in the Global Associate Engagement Survey are reviewed by executive management and the **Global Continuous Improvement Workgroup** to identify any actions that need to be taken at the organizational level. The Continuous Improvement Team at each operating company analyzes the local results and engages the associates in action planning to address areas for improvement. Each associate has the opportunity to make Buckman a better place to work through this process. Buckman recognizes that engaging and empowering associates to create a stronger organization will make us more sustainable into the future.

Our 2016 survey reveals these strengths:

Associates believe that Buckman supports diversity and demonstrates care and concern, and that Buckman values safety, environmental and social responsibility.

Associates feel recognized and treated with respect and feel Buckman has the ability to improve when an area of opportunity is identified.

Associates also feel:

- They are being coached by their managers and receiving feedback on their work.
- They are receiving recognition for doing a great job.
- They are encouraged to come up with new or better ways of doing things.
- They have opportunities to have their ideas adopted and put into use.
- Cooperation and sharing of ideas and resources across Buckman is encouraged.
- There are opportunities for learning and development.

In the 2016 survey, associates raised concerns about Buckman’s future business prospects and about how the Company is organized and structured. Associates also expressed concern that the number of resources (people) to do the work in their area was challenged. We will remain dedicated to these areas of opportunity and ensure that all communication regarding them is clear.

Communities

Buckman has established programs for serving our communities on a global and local level. See the Economics section in this document for a description of our community relations activity through our **BuckmanCares** program. We regularly engage with our local communities to ensure that our efforts result in positive impacts to both lives and the environment.

Suppliers/Business Partners

We work very closely with our suppliers to find ways to streamline, conserve and save. Our current collaborative efforts include a broad range of activities including customer/market needs management, open innovation, supply/demand planning, waste reduction and much more. Open collaboration drives our relationship with each partner and supplier. Our goal is to continue formalizing our process for getting to know each better. The more they understand our expectations, and us theirs, the stronger all of us become.

In 2016, evidences of supplier engagement included:

- Supplier questionnaire to engage suppliers in our supply chain
- Buckman Global Procurement Organization chartered with procurement sustainability and supplier engagement as a top priority.
- Globally standardized supplier qualification and performance review process with enhanced sustainability and supplier engagement requirements.
- New green enzymatic technology developed to replace traditional chlorine-based pulp bleaching chemistries. This resulted from a strategic supplier alliance.

- Ongoing global supply chain manufacturing optimization initiative that involves the engagement of and collaboration with contract manufacturers having core competencies in key manufacturing processes utilized by Buckman. This effort not only optimizes our global supply chain, but better consolidates production risks into more specialized facilities with better scale and engineering to reduce risks and waste.

Government/Regulatory

Local governments and regulatory agencies are engaged via participation on committees or task forces, through written communications to agencies, or with face-to-face meetings. The level of corporate or local engagement depends on the issue.

Industry Trade Associations

Buckman participates in strategic industry trade associations at both the global and local levels. These interactions provide us an opportunity to gather feedback on sustainable practices in their respective areas for use in determining materiality.

Board of Directors

Regular engagement with the Board of Directors enables us to ensure each director has the information necessary to help establish strategy for mitigating risk.

While we have made a lot of progress in our sustainability reporting, we still have room for improvement in how we engage our stakeholders regularly and will work to find ways that make sense for our organization.

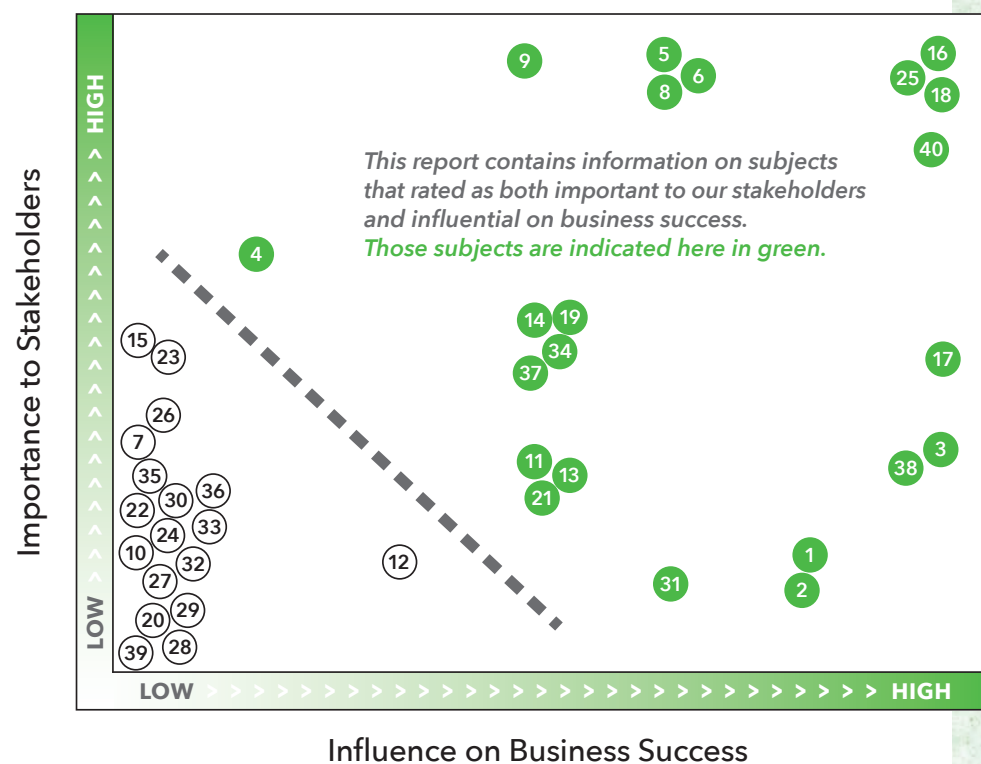
G4-19

G4-20

G4-21

Materiality

Materiality is critically important to our corporate sustainability efforts as it ensures we provide information to our stakeholders that is most relevant to them. To prepare for this report, the reporting team consulted each of the stakeholder engagement mechanisms currently in place to determine materiality. For example, for customers, we utilized the information gathered from the Customer Satisfaction Surveys, and for suppliers, our source was the Supplier Questionnaire.



| | | |
|------------------------|----|--|
| Economic | 1 | Economic Performance |
| | 2 | Market Presence |
| | 3 | Procurement Practices |
| Environmental | 4 | Materials |
| | 5 | Energy |
| | 6 | Water |
| | 7 | Biodiversity |
| | 8 | Emissions |
| | 9 | Effluents and Waste |
| | 10 | Products and Services |
| | 11 | Compliance |
| | 12 | Transport |
| | 13 | Supplier Environmental Assessment |
| Social | 14 | Employment |
| | 15 | Labor/Management Relations |
| | 16 | Occupational Health and Safety |
| | 17 | Training and Education |
| | 18 | Diversity and Equal Opportunity |
| | 19 | Equal Remuneration for Women and Men |
| | 20 | Supplier Assessment for Labor Practices |
| Human Rights | 21 | Labor Practices Grievance Mechanisms |
| | 22 | Investment |
| | 23 | Non-Discrimination |
| | 24 | Freedom of Association and Collective Bargaining |
| | 25 | Child Labor |
| | 26 | Forced or Compulsory Labor |
| | 27 | Security Practices |
| | 28 | Indigenous Rights |
| | 29 | Supplier Human Rights Assessment |
| | 30 | Human Rights Grievance Mechanisms |
| Society | 31 | Local Communities |
| | 32 | Anti-Corruption |
| | 33 | Anti-Competitive Behavior |
| | 34 | Compliance |
| | 35 | Supplier Assessment for Impacts on Society |
| | 36 | Grievance Mechanisms for Impacts on Society |
| Product Responsibility | 37 | Customer Health and Safety |
| | 38 | Product and Service Labeling |
| | 39 | Marketing Communications |
| | 40 | Compliance |

Making Strides Toward a Superior Work Experience

A COMPANY IS ONLY AS STRONG as the people who work there. That's why Buckman has comprehensive workplace strategies and policies in place to ensure that employees can not only climb the ladder of success, but also stay safe and healthy doing it. By providing plenty of opportunities for employees to grow, contribute to the company in fulfilling ways and have a positive impact on their communities, we hope to inspire them to make a life with us.



ALONG THE
CAREER PATHS
OF OUR ASSOCIATES

G4-9

G4-10

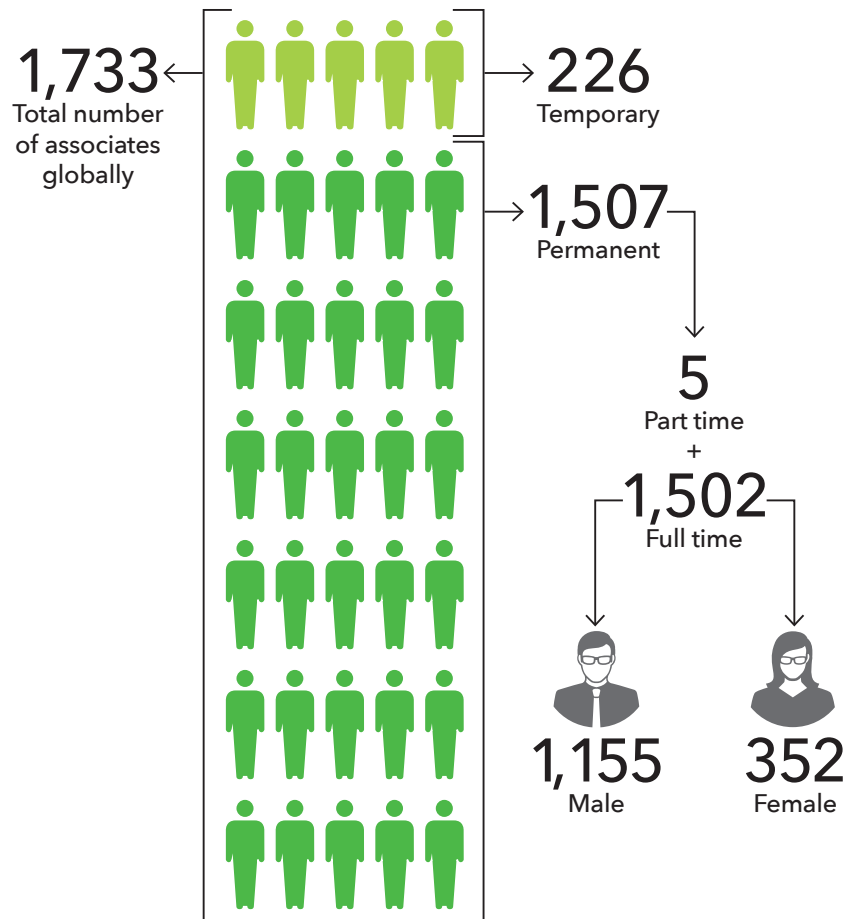
G4-11

G4-LA1

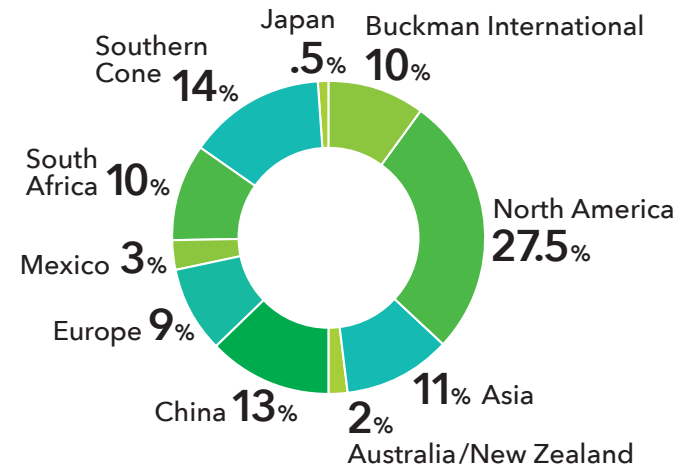
Who We Are

We're a group of 1,733 geographically, ethnically, and culturally diverse professionals working together to provide world-class products and services. Here's how it breaks down.

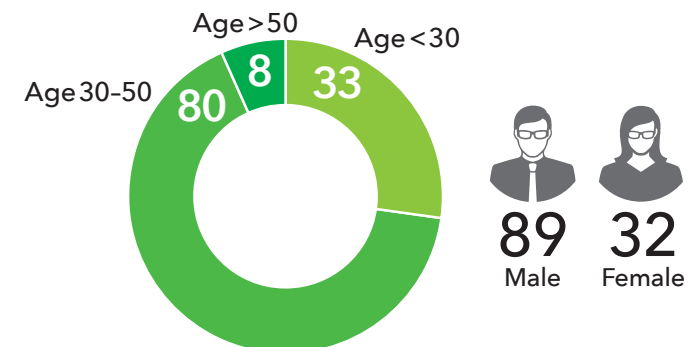
A snapshot of our global workforce



Headcount by region



2016 new hires by age and gender



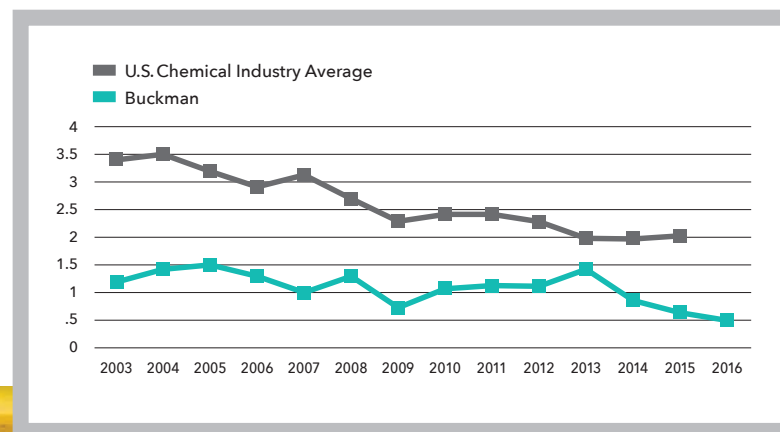
G4-LA2

G4-LA6

Employee Health, Safety & Well-being

Buckman offers major benefits to full-time associates in the countries where it does business. These benefits may vary by country, but include:

- Medical
- Dental
- Vision
- Flexible spending account
- Life insurance
- Optional life insurance
- Long-term care
- Accidental death & dismemberment insurance
- Travel accident insurance
- Long- and short-term disability
- Employee Assistance Program (EAP)
- Cancer plan
- Legal plan
- Tuition reimbursement
- 401(k)/profit sharing
- Vacation
- Relocation
- Healthcare survivor benefits



Occupational Health and Safety Data

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

Total Recordable Injuries and Illnesses*

| Buckman Incident Rating | 1.9 | 1.2 | 1.4 | 1.5 | 1.3 | 1.0 | 1.3 | 0.7 | 1.2 | 1.12 | 1.11 | 1.44 | 0.87 | 0.65 | 0.49 |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| U.S. Chemical Industry Average | | 3.4 | 3.5 | 3.2 | 2.9 | 3.1 | 2.7 | 2.3 | 2.4 | 2.4 | 2.3 | 2.0 | 2.3 | 2.1 | -- |
| U.S. Manufacturing Industry Average | | 6.8 | 6.6 | 6.3 | 6.0 | 5.6 | 5.0 | 4.3 | 4.4 | 4.4 | 3.0 | 2.8 | 4.0 | 3.8 | -- |

Lost Workday Cases**

| Buckman Incident Rating | 0.7 | 0.5 | 0.3 | 0.5 | 0.7 | 0.3 | 0.1 | 0.3 | 0.4 | 0.6 | 0.4 | 0.5 | 0.43 | 0.27 | 0.11 |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| U.S. Chemical Industry Average | | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.6 | 0.7 | 0.7 | 0.7 | 0.5 | 0.7 | 0.6 | -- |
| U.S. Manufacturing Industry Average | | 1.6 | 1.6 | 1.5 | 1.4 | 1.3 | 1.2 | 1.0 | 1.1 | 1.1 | 0.8 | 0.8 | 1.0 | 1.0 | -- |

Off-Job Injuries

| Buckman Incident Rating | Buckman does not currently measure off-job injuries. | | | | | | | | | | | | | | |
|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Fatalities

| Buckman Incident Rating | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.06*** | 0 | 0 | 0 | 0 |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|
|-------------------------|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|

*Represented by the occupational incident rating (OIR) calculated by the total number of occupational injuries/illnesses resulting in medical treatment, restricted time, lost time or fatality multiplied by 200,000 then divided by the number of man-hours worked.

**Represented by a lost-time injury rate (LTIR), calculated by the total number of occupational injuries/illnesses resulting in medical treatment, lost time or fatality multiplied by 200,000 then divided by the number of man-hours worked.

***Buckman suffered a fatal accident of a non-Buckman service representative working at a customer site in China.

G4-LA5

G4-LA8

Labor Relations

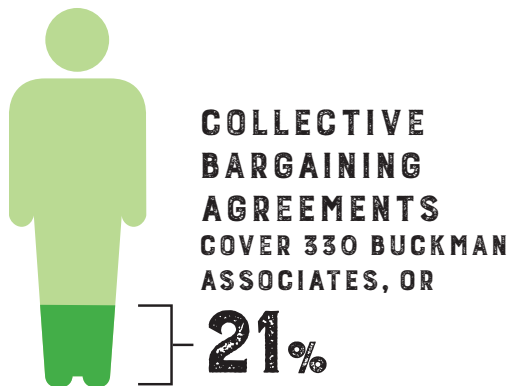
Buckman endeavors to understand the needs of our workforce and meet those needs through labor relation policies that not only respect workers but also empower them.

100 percent of the Buckman workforce is represented in the chartered Global Safety, Health and Environmental (SHE) community.

This committee holds bimonthly virtual meetings as well as a face-to-face meeting every 12-18 months. Their objective is to establish process, improve communications and implement health and safety initiatives.

At Buckman, we understand the inherent risks of our industry. That's why our **Global Safety & Environmental Department** engages in a disciplined program of risk analysis and planning that includes:

- Setting and following strict protocols for the safe operation of our plants and the safe handling of our products.
- Focusing on employee health, implementing a global medical and health testing standard to reduce serious illness in the workplace and the related healthcare costs.



In the regions where we have formal agreements with trade unions (Southern Cone, South Africa and Mexico), we cover health and safety in those agreements. The health and safety topics covered in all local level agreements include:

- SHERQ representatives safety inspection report
- First-aid box
- Suggestion box
- Emergency response plan
- Workplace safety
- Modified policies and procedures
- Audit results of ISO 9000 / 14000
- Occupational health reports
- Hygiene reports
- Personal protective equipment
- Nonconformances
- Outstanding actions
- Consultation
- Joint management-employee health and safety committees
- Training and education
- Participation of worker representatives in health and safety inspections, audits and accident investigations
- Complaints mechanism
- Right to refuse unsafe work

Additional health and safety topics that are covered in these agreements but are specific to certain countries include:

- Compliance with the International Labor Organization (ILO)
- Arrangements or structures for resolving problems
- Commitments regarding target performance standards

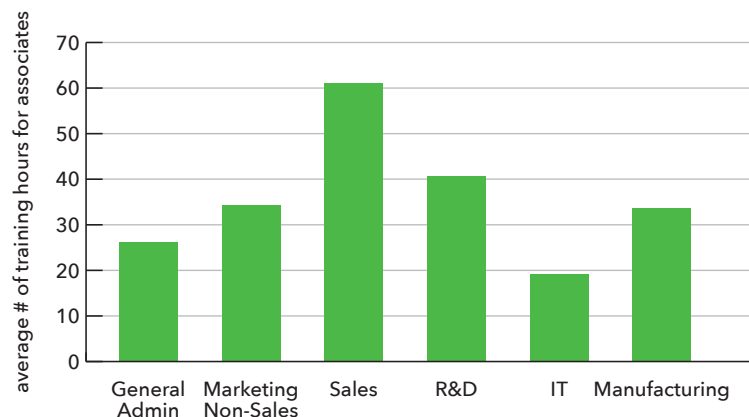
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G4-LA11

Training and Development

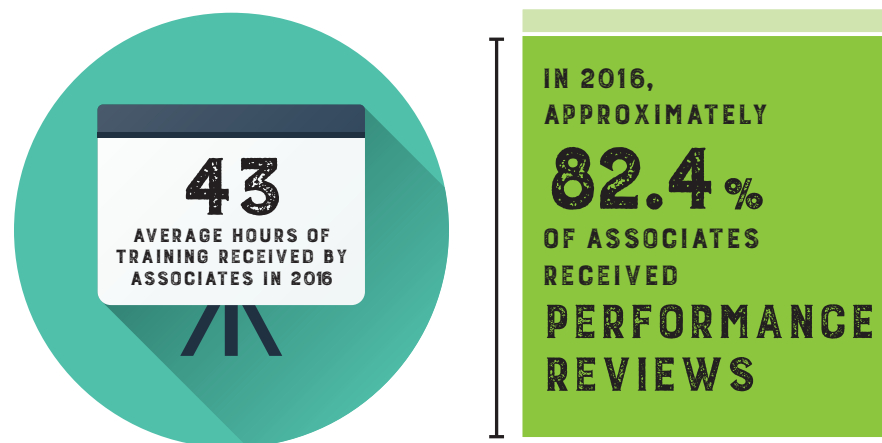
At Buckman, we place great emphasis on employee development, the exchange of knowledge and information, and the fostering of transformational leadership skills. Only when our associates grow better and stronger can we expect our Company to do the same.

2016 Training Hours



74,406
TOTAL TRAINING HOURS
GLOBALLY IN 2016

In 2016, Buckman was named one of LearningElite's top organizations by *Chief Learning Officer* magazine and the Human Capital Media Research and Advisory Group. The award recognizes leading learning organizations around the world that display exceptional workforce development strategies that translate into business results.



Managers and associates (contractors not included) have a formal performance review annually (at a minimum) to review the prior period performance and set goals for the next period.

Success doesn't come from working in a vacuum. Key leaders and managers participate in annual talent forum events to discuss every associate's performance and potential and desire to move into higher levels of leadership. These forums are a key piece of our sustainability effort, as it will be our people who will enable us to remain viable 10, 20 and 30 years down the road. It's all about having the right people in the right roles, and it is a continuing self-renewal process that keeps us positioned to meet the changing needs of both our customers and our shareholders.

G4-S6

G4-SO3

G4-SO4

Ethical Conduct

The **Buckman Fundamentals** explain who we are and what we believe. They are a guide by which we serve all our customers around the world. They support our main goal, which is to build long-term relationships and create sustainable value for our customers. The Buckman Fundamentals also assure every customer that we will act in an ethical, honest and transparent manner to solve their technical problems, safeguard the environment and maintain safety in the workplace. These fundamentals include:

- **Buckman Code of Ethics**
- **Mission Statement**
- **Sustainability** – Buckman’s commitment to sustainability is manifested in four areas: the quality of our work, the safety of our people, the support of our communities and the protection of our environment.
- **Quality**
- **Safety**
- **Community**
- **Environment**
- **Our Goal: Zero Negative Environmental Impact**

All associates are given access to **EthicsPoint**, a reporting system that serves as an alternative to approaching their manager, human resources or senior management about activities or conduct believed to be unethical, illegal or in violation of our Code of Ethics. EthicsPoint reports can be made anonymously and confidentially, and associates can feel confident that there will be no negative consequence for reporting or inquiring about potential violations in good faith. Training on the Buckman Code of Ethics and EthicsPoint is part of the new associate orientation process at each operating company.

Operating with integrity extends to preventing corruption and anti-competitive behavior. One hundred percent of our nine operating companies are analyzed for risks related to corruption. We maintain a risk management committee at the board level, and we ensure all our associates globally are educated on the Code of Ethics.

In addition to EthicsPoint training provided to each newly hired associate, Buckman requires all upper level managers to complete an online **Foreign Corrupt Practices Act** training course. As a result, external and internal financial audits have uncovered no incidents of corruption.

The **BUCKMAN CODE OF ETHICS** provides a clear understanding of the basic principles by which we will operate our company. These are:

That the company is made up of individuals—each of whom has different capabilities and potentials—all of which are necessary to the success of Buckman.

That we acknowledge that individuality by treating each other with dignity and respect—striving to maintain continuous and positive communications among all of us.

That we recognize and reward the contributions and accomplishments of our associates.

That we continually work to improve our teaming skills because we recognize that effective teamwork is essential to fulfilling our purpose.

That we continually strive to learn both as an organization and as individuals so that we are positioned to create value.

That we continually plan for the future so that we can control our destiny instead of letting events overtake us.

That we make all decisions in light of what is right for the good of the whole company rather than what is expedient in a given situation.

That our customers are the only reason for the existence of Buckman and, to serve them properly, we must supply services and products which provide economic benefit over and above their cost.

That we must apply creativity to everything we do.

That we must use the highest ethics to guide our business dealings to ensure that we are always proud to be a part of Buckman.

That we will discharge the responsibilities of corporate and individual citizenship to earn and maintain the respect of the community.

As individuals and as a corporate body, we must endeavor to uphold these standards so that we may be respected as persons and as an organization.



Maintaining a Sure Footing

THIS IS WHERE THE PATH to sustainability begins—with fiscal planning and execution that is both careful and powerful, responsible and transformational. At Buckman, we take bold steps but we also watch our step to ensure that Buckman remains a long-term, value-oriented, future-focused business. After more than 72 years of growth and success, we know that the path of responsibility leads to great rewards—financial, social and environmental.

G4-EC1

Economic Performance

Economic performance is often measured by costs, income, and profit. At Buckman, we also consider the investment we make in our workforce and the return on that investment back to our employees in the form of opportunities for learning and growth, personal fulfillment, and financial reward.



G4-12

G4-EN32

Supply Chain Management

Buckman strongly values our suppliers and believes supplier relationship management is a key aspect in ensuring the sustainability of our business. Governance includes the **Buckman Fundamentals** and **ISO 14001 Environmental/ISO 9001 Quality Management Systems** – registered sourcing policies and programs. Buckman employs a collaborative model in effectively engaging our suppliers throughout the organization. Strategic supplier relationships are maintained for critical sourcing needs and key technologies. The right sustainable suppliers are selected and maintained according to Buckman's established supplier selection, qualification and performance evaluation processes. Supplier selection is integrated into the earliest phases of the new product/process development. Collaborative engagement with our suppliers covers a broad range of activities including customer/market needs management, open innovation, supply/demand planning, make-versus-buy, risk management, waste reduction and regulatory compliance. Continual improvement is driven through open collaboration with suppliers on our mutual performance, according to our established practices.

G4-S01

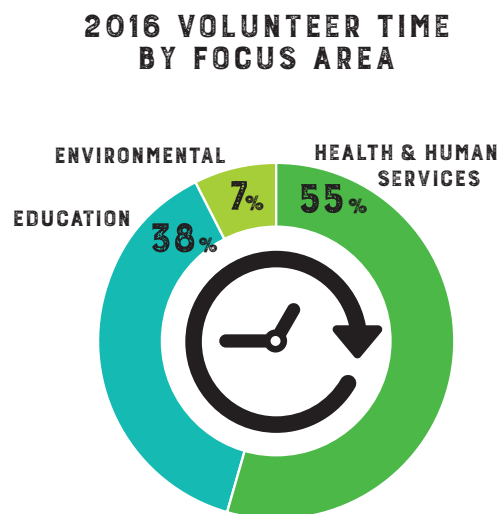
Humanitarian Commitment

A sustainable world is one in which health and welfare are promoted through education, health care and employment. Buckman takes a leadership role, working hard to improve the quality of life for our associates, our local communities, and the global community we all share.

BuckmanCares, our global community engagement initiative, dedicates Buckman resources—both financial and human—to improving education for youth, enhancing health and human services, and bolstering environmental stewardship. These efforts make our communities more livable. They earn the respect and goodwill of others. And they provide unique opportunities for personal growth and fulfillment for our associates.



IN 2016
BUCKMAN ASSOCIATES
VOLUNTEERED MORE THAN
**9,500
HOURS**
TO SUPPORT OUR COMMUNITIES,
WITH AN ESTIMATED VALUE OF
\$635,556



MORE THAN
81,000
PEOPLE
WERE POSITIVELY IMPACTED
BY THE **BUCKMANCARES** PROGRAM

G4-PR1

G4-PR3

G4-PR5

Product Responsibility

At Buckman we take the quality, safety and efficacy of our products seriously and have measures in place to ensure our products work to sustain the highest possible positive economic impact for both our company and our customers.

Buckman has in place review processes for the development and commercialization of 100 percent of all new products. Regulatory changes or new hazard information can also trigger safety reviews of existing products. Buckman incorporates product Life Cycle tools into selected product evaluations.

All of Buckman's products must comply with hazard communication laws for the countries in which Buckman sells them. These requirements include product **Safety Data Sheets (SDS)** and labels. When required by local and national regulations, the content of the SDSs and labels includes information on: the content of substances that might produce an environmental impact, safe use and disposal, and other information as required for compliance. Information on the sourcing of components is collected but not disclosed to customers via SDSs and labels. Buckman also provides direct support to customers when additional information is needed regarding safe handling and uses for specific applications. Buckman complies with the global implementation schedules of the **Globally Harmonized System for Classification and Labeling**.

It is standard for Buckman to administer a customer satisfaction survey to customers meeting a certain sales threshold for a calendar year. However, the survey is available to all sales associates. We depend on the sales

associates to administer the survey. The main purpose of this survey is to increase customer interaction (engagement)—the numbers are not used to judge anyone. In addition, we administer it to more than one person at each customer location.

Once a survey has been administered, the results are compiled and a report is generated, which is made available to the sales associate, who then reviews the report with the customer at an annual business review.

Once the report has been presented to the customer, the sales associate prepares an action plan based on the findings and the discussion with the customer. The sales associate then reviews the business plan with the customer. All of these actions are governed by our **8 Business**

Management Standards:

- Communication
- System knowledge
- Planning
- Safety
- Program manuals
- Service and activity reports
- Business reviews
- Continuous improvement

Continuous improvement is the end goal for every customer, the driving inspiration for everything we do.

A person wearing a red jacket and blue pants is crossing a rustic bridge made of logs over a stream in a forest. The text 'ON THE TRAILS OF ENVIRONMENTAL STEWARDSHIP' is overlaid in a large, white, distressed font.

ON THE TRAILS OF ENVIRONMENTAL STEWARDSHIP

Treading Lightly to Reduce Our Environmental Footprint

THE TRUE VALUE OF A COMPANY is measured not only by what it produces but also by what it doesn't. Like greenhouse gases and waste. The more we can decrease negative impacts on the environment, the greater our positive impacts can be on our associates, suppliers, customers and communities. That's why, whether it's

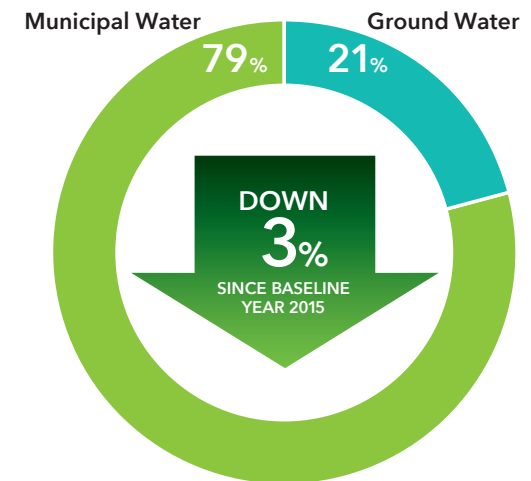
developing greener chemistries such as our naturally derived enzymatic technologies, improving water conservation and recycling, or reducing energy use, Buckman is fiercely committed to finding new ways to make meaningful contributions to environmental health and sustainability around the world.

We have set new targets for water, energy, emissions and waste and are now measuring our progress against baselines set in 2015. Please see the appendix B for more detail.

Water

G4-EN8

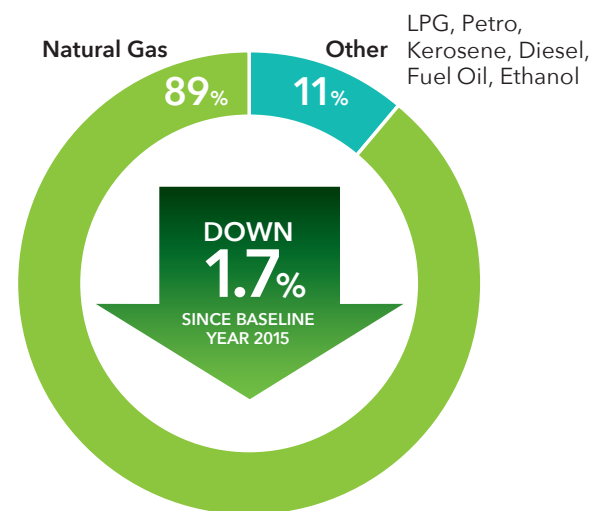
Total Water Withdrawn



Energy

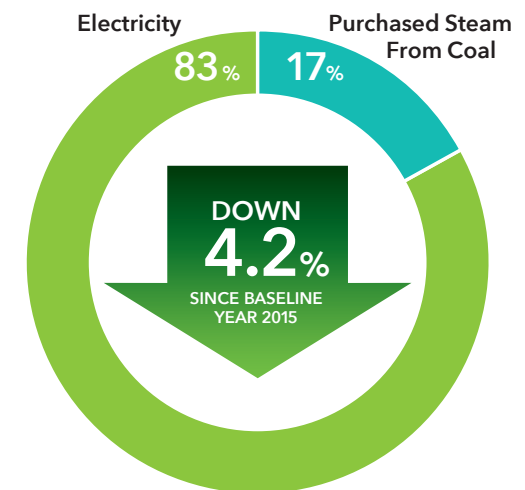
G4-EN3

Direct Energy Consumption



G4-EN5

Indirect Energy Consumption



Emissions

G4-EN15

Direct GHG Emissions, Scope 1



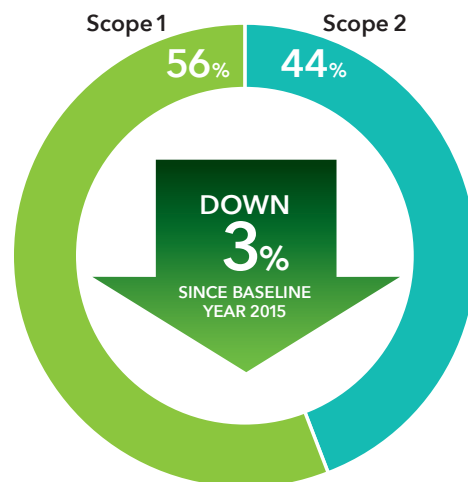
G4-EN16

Direct GHG Emissions, Scope 2



G4-EN18

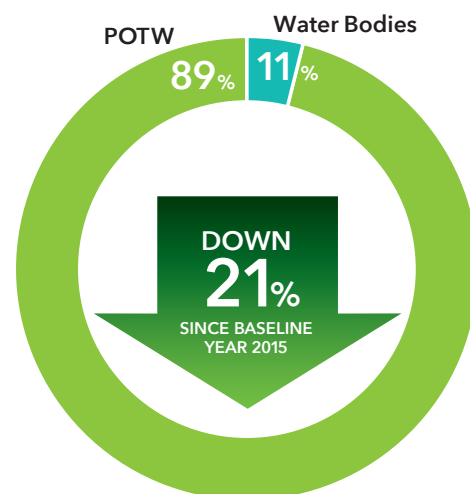
GHG Emissions Intensity



Effluents & Waste

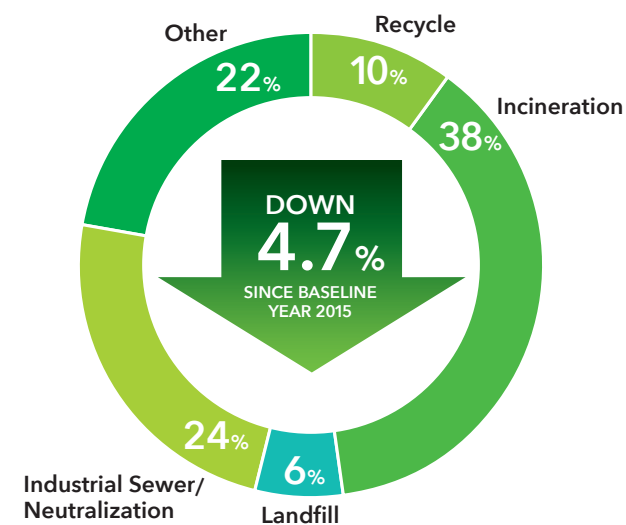
G4-EN22

Water Discharge Intensity



G4-EN23

Total Mass of Waste



G4-28

G4-29

G4-30

G4-31

G4-32

G4-33

About This Report

Reporting Period

The report presents data as of December 31, 2016. We issue our Corporate Sustainability Report on a biennial basis. The date of the most recent report is June 2015.

GRI Content

The Report is organized and presented in accordance with the G4 framework established by the Global Reporting Initiative (GRI).

The G4 framework includes two options for reporting in accordance: "Core" and "Comprehensive." This Report is 'in accordance' with the option "Core" of the GRI G4 Guidelines. Buckman has voluntarily followed GRI reporting guidelines since 2010.

GRI G4 Content Index

We provide a complete GRI G4 content index for G4 Core in Appendix C, beginning on page 29.

GRI Indicators

Disclosures on GRI indicators are marked with color-coded boxes near the titles of chapters and their subsections. These support transparency about sustainability within our organization.

External Assurance Reports

Buckman does not seek external assurance for this report.

Contact Us

Please contact the following with questions or comments about this report:

Barry Enix
Director, Global Safety & Environment

Christy Sharp
Director, Global Marketing Communications

Environmental Data Tables

G4-EN3

G4-EN5

Direct Energy Consumption

The direct energy consumed by the company to manufacture products and provide power to our office buildings in 2016 was 185,000 gigajoules. About 89 percent (165,242 GJ) of the direct energy was generated from purchased natural gas and 11 percent from other liquid fuel sources (LPG, petro, kerosene, diesel, fuel oil and ethanol). The direct energy consumption is reported for all of our major sites, which includes our global headquarters and sites containing manufacturing plants.

We established a reduction target of 15 percent from the 2010 baseline for nonrenewable direct energy consumption per kilograms of production by 2015. We achieved a 9.8 percent reduction in the consumption of direct energy from our baseline year (2010).

We've established a new five (5) year reduction target of 10 percent by 2020 for nonrenewable direct energy from our new baseline year (2015). In 2015, the nonrenewable direct energy consumption per kilograms of production was 1.19 MJ/kg. Based on this, the target for 2020 is 1.071 MJ/kg. In 2016 the direct nonrenewable energy intensity was 1.17 MJ/ kg. We have achieved a 1.7 percent reduction in the consumption of direct energy from our baseline year (2015).

| UNITS | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------------------------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Direct Energy Consumption | | | | | | | | |
| Intensity | MJ/kg | 1.32 | 1.11 | 1.12 | 1.22 | 1.17 | 1.19 | 1.17 |
| TOTAL | GJ | 202,974 | 170,540 | 178,494 | 197,194 | 189,110 | 182,165 | 184,751 |

| | | | | | | | | |
|--|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Direct Energy Consumption by Source | | | | | | | | |
| Diesel | GJ | 4,007 | 2,554 | 2,804 | 1,671 | 1,490 | 1,428 | 1,060 |
| Fuel Oil | GJ | 21,704 | 20,149 | 18,142 | 19,609 | 15,771 | 12,965 | 11,716 |
| Kerosene | GJ | 7,437 | 6,750 | 6,159 | 6,664 | 6,600 | 6,195 | 6,210 |
| Petrol | GJ | 4,254 | 1,339 | 777 | 366 | 348 | 172 | 156 |
| Propane | GJ | 910 | 1,263 | 228 | 1,085 | 747 | 514 | 367 |
| Natural Gas | GJ | 158,990 | 138,485 | 150,384 | 167,798 | 164,154 | 160,890 | 165,243 |
| TOTAL | GJ | 197,302 | 170,540 | 178,494 | 197,193 | 189,110 | 182,164 | 184,752 |

G4-EN3

G4-EN5

Indirect Energy Consumption

The indirect energy consumed by the company in 2016 was 98,842 GJ. The indirect energy consumption is reported for all of our major sites, which includes our global headquarters and sites containing manufacturing plants. This includes all indirect energy consumption at these sites, which consists of purchased electricity and purchased steam (only in China). Indirect energy consumption at small satellite facilities is not included.

We've established a new reduction target of 10 percent by 2020 for indirect energy from our new baseline year (2015). In 2015, the indirect nonrenewable energy intensity was 0.543 MJ/kg. Based on this, the target for 2020 is 0.489 MJ/kg. In 2016, the indirect nonrenewable energy intensity was 0.520 MJ/kg. We have achieved a 4.2 percent reduction in the consumption of indirect energy from our baseline year (2015).

| | UNITS | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------------------------|-----------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|
| Indirect Energy Consumption | | | | | | | | |
| Intensity | MJ/kg | 0.496 | 0.512 | 0.473 | 0.505 | 0.436 | 0.543 | 0.52 |
| TOTAL | GJ | 97,054 | 98,834 | 95,335 | 102,157 | 87,515 | 99,230 | 98,842 |

| | | | | | | | | |
|--|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Indirect Energy Consumption by Type | | | | | | | | |
| Electricity | GJ | 72,678 | 74,280 | 71,543 | 77,749 | 69,112 | 68,192 | 68,353 |
| Purchased Steam from Coal | GJ | 3,270 | 4,173 | 4,151 | 3,568 | 1,539 | 15,190 | 13,680 |
| TOTAL | GJ | 75,948 | 78,453 | 75,694 | 81,317 | 70,651 | 83,382 | 82,033 |

G4-EN8

Total Water Withdrawn

Based on the 2015 baseline, we set a 10 percent reduction target by 2020 for water consumption per kilogram of production. In 2015, the water consumption per kilogram of production was 0.001718 m³/kg. Based on this, the target for 2020 is 0.0015462. In 2016, the water consumption per kilogram of production was 0.001666 m³/kg. We have achieved a 3 percent reduction in the consumption of total water from our baseline year (2015).

Based on the 2010 baseline, we set a 15 percent reduction target by 2015 for water consumption per kilogram of production. We achieved a 42.4 percent reduction in water consumption from our baseline year (2010). Our water target was achieved.

| UNITS | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Total Water Withdrawn | | | | | | | | |
| Intensity | m ³ /kg | 0.002982 | 0.002315 | 0.002109 | 0.001885 | 0.001906 | 0.001718 | 0.001666 |
| VOLUME | m³ | 457,057 | 354,465 | 337,187 | 303,509 | 309,114 | 263,672 | 262,727 |

| | | | | | | | | |
|--|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Total Water Withdrawn by Source | | | | | | | | |
| Ground water | m ³ | 155,745 | 78,608 | 81,666 | 72,946 | 64,696 | 56,747 | 54,208 |
| Municipal water | m ³ | 300,700 | 275,257 | 254,909 | 229,951 | 199,070 | 206,325 | 207,738 |
| TOTAL | m³ | 456,445 | 353,865 | 336,575 | 302,897 | 263,766 | 263,072 | 261,946 |

G4-EN15

Direct GHG Emissions, Scope 1

Buckman collects data on direct greenhouse gas (GHG) emissions known as Scope 1 GHG emissions from sources owned or controlled by Buckman. Data collected is from all manufacturing facilities and the corporate headquarters. CO₂ emissions from these activities were calculated using emission factors. Factors of conversion of energy quantities to equivalent CO₂ are derived from data published by The American Chemistry Council. Generation efficiencies used for this calculation are derived from U.S. Department of Energy and American Chemistry Council data. The greenhouse gas impact of distribution of products and waste has not been assessed and is not included.

We began measuring CO₂ emissions in 2010, but only included fleet vehicle emissions since 2012. Our goal was to reduce the intensity by 15 percent by 2015. We achieved a 10.7 percent reduction from our baseline year (2012).

We've established a new five (5) year reduction target of 10 percent by 2020 for direct GHG emissions, Scope 1, from our new baseline year (2015). In 2015, the direct GHG emissions per kilograms per tonne of production was 0.09627. Based on this, the target for 2020 is 0.086643 kg per tonne of production. In 2016, the direct GHG emissions was 0.093677. We have achieved a 2.7 percent reduction in our direct GHG emissions from our baseline year (2015).

| UNITS | | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------------------------------|--------------------------------|----------|----------|----------|---------|----------|
| Direct GHG Emissions, Scope 1 | | | | | | |
| Intensity | kg per tonne of production | 0.107752 | 0.092608 | 0.094095 | 0.09627 | 0.093677 |
| SCOPE 1 EMISSIONS | metric tons of CO ₂ | 17,231 | 14,912 | 15,260 | 14,778 | 14,775 |

G4-EN16

Direct GHG Emissions, Scope 2

Buckman collects data from indirect GHG emissions (Scope 2) from sources as a consequence of Buckman energy needs that are not owned or controlled by Buckman (e.g., purchased electricity and steam). Data collected is from all manufacturing facilities and the corporate headquarters. CO₂ emissions from indirect energy consumption these activities were calculated using emission factors. Factors of conversion of energy quantities to equivalent CO₂ are derived from data published by The American Chemistry Council. Generation efficiencies used for this calculation are derived from U.S. Department of Energy and American Chemistry Council data. The greenhouse gas impact of distribution of products and waste has not been assessed and is not included.

We've established a new five (5) year reduction target of 10 percent by 2020 for indirect GHG emissions, Scope 2, from our new baseline year (2015). In 2015, the indirect GHG emissions per kilograms per tonne of production was 0.076147. Based on this, the target for 2020 is 0.0685323 kg per tonne of production. In 2016, the direct GHG emissions was 0.07349. We have achieved a 3.5 percent reduction in our direct GHG emissions from our baseline year (2015).

| UNITS | | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------------------------------|--------------------------------|----------|----------|----------|----------|---------|
| Direct GHG Emissions, Scope 2 | | | | | | |
| Intensity | kg per tonne of production | 0.070085 | 0.075189 | 0.064613 | 0.076147 | 0.07349 |
| Scope 2 emissions | metric tons of CO ₂ | 11,207 | 12,107 | 10,478 | 11,689 | 11,591 |

G4-EN18

Greenhouse Gas Emissions

We've established a new five (5) year reduction target of 10 percent by 2020 for GHG emissions (Scope 1 and 2 combined) from our new baseline year (2015). In 2015, the GHG emissions per kilograms per tonne of production was 0.172417. Based on this, the target for 2020 is 0.1551753 kg per tonne of production. In 2016, the GHG emissions was 0.167167. We have achieved a 3 percent reduction in our direct GHG emissions from our baseline year (2015).

We began measuring CO₂ emissions in 2010, but only included fleet vehicle emissions since 2012. Our goal was to reduce the intensity by 15 percent by 2015. We achieved a 3.1 percent reduction from our baseline year (2012).

| UNITS | | 2012 | 2013 | 2014 | 2015 | 2016 |
|-------------------------|----------------------------|----------|----------|----------|----------|----------|
| GHG emissions intensity | | | | | | |
| Scope 1 Intensity | kg per tonne of production | 0.107752 | 0.092608 | 0.094095 | 0.09627 | 0.093677 |
| Scope 2 Intensity | kg per tonne of production | 0.070085 | 0.075189 | 0.064613 | 0.076147 | 0.07349 |
| TOTAL INTENSITY | KG PER TONNE OF PRODUCTION | 0.177837 | 0.167797 | 0.158708 | 0.172417 | 0.167167 |

G4-EN22

Total Water Discharge

We've established a new five (5) year reduction target of 10 percent by 2020 for total water discharged intensity from our new baseline year (2015). In 2015, the total water discharged intensity was 1.003101. Based on this, the target for 2020 is 0.90279 cubic meters per tonne of production. In 2016, the total water discharge intensity was 0.796474. We have achieved a 21 percent reduction in total water discharge intensity, already passing our goal of a 10 percent reduction by 2020.

| UNITS | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------------------|--------------------|----------|----------|----------|---------|----------|----------|----------|
| Total Water Discharge | | | | | | | | |
| Intensity | m ³ /kg | 0.966217 | 1.041621 | 0.806499 | 0.8922 | 0.897433 | 1.003103 | 0.796474 |
| VOLUME | m ³ | 148,099 | 159,467 | 128,969 | 143,668 | 145,539 | 153,978 | 125,622 |

| | | | | | | | | |
|------------------------------------|----------------|---------|---------|---------|---------|---------|---------|---------|
| Total Operational Discharge | | | | | | | | |
| POTW | m ³ | 136,811 | 152,470 | 118,225 | 138,775 | 141,552 | 150,183 | 121,067 |
| Water Bodies | m ³ | 9,126 | 6,996 | 9,281 | 4,778 | 3,972 | 3,769 | 4,575 |
| TOTAL | m ³ | 145,937 | 159,466 | 127,506 | 143,553 | 145,524 | 153,952 | 125,642 |

G4-EN23

Total mass of waste by type and disposal method

We've established a new five (5) year reduction target of 10 percent by 2020 for total waste from our new baseline year (2015). In 2015, the intensity of total waste was 0.022191 kilograms per kilogram production. Based on this, the target for 2020 is 0.019972. In 2016, the intensity of total waste was 0.021149. We have achieved a 4.7 percent reduction in our total waste since our 2015 baseline.

We set a 15 percent reduction target for total waste intensity generated by 2015 using 2012 as the baseline year. Prior to 2012, we reported only waste to landfill and incineration, which did not include waste reused, recycled or recovered. From 2012 to 2015, our total waste decreased 22 percent. Waste intensity decreased by 18.9 percent. Our target was achieved.

| Total mass of waste by type and disposal method | | | | | | | | |
|---|----------------|----------------|------------------|-----------------------|-------------------|---------------------|--|----------------|
| Buckman (2016) | Total Waste | Waste to Reuse | Waste to Recycle | Waste to incineration | Waste to landfill | Waste to composting | Waste to industrial sewer/neutralization | Waste to other |
| Operational Hazardous Waste | 2001.882 | 0 | 3.023 | 1132.08 | 0 | 0 | 630.904 | 235.875 |
| Operational non-hazardous waste | 893.959 | 1.905 | 172.237 | 124.388 | 73.68 | 0 | 161.988 | 359.761 |
| Non-Operational waste | 439.909 | 0 | 155.725 | 0 | 124.519 | 0 | 0 | 159.665 |
| TOTAL | 3335.75 | 1.905 | 330.985 | 1256.468 | 198.199 | 0 | 792.892 | 755.301 |

GRI G4 Content Index

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|-------------------------------|--|---|---|
| Strategy and Analysis | | | |
| G4-1 | Provide a statement from the most senior leader. | 4 | |
| Organizational Profile | | | |
| G4-3 | Report the name of the organization. | 5 – 6 | |
| G4-4 | Report the primary brands, products, and services. | 5 – 6 | |
| G4-5 | Report the location of the organization's headquarters. | 5 – 6 | |
| G4-6 | Report the number of countries where the organization operates. | 5 – 6 As of the end of 2016, Buckman's manufacturing facilities are in the United States, Canada, Mexico, Brazil, Belgium, South Africa, China and Singapore. | |
| G4-7 | Report the nature of ownership and legal form. | 5 – 6 | |
| G4-8 | Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries). | 5 – 6 | |
| G4-9 | Report the scale of the reporting organization. | 5 – 6, 14 | |
| G4-10 | Breakdown of employee type. | 14 There are no significant variations in employment numbers. | Currently unavailable. Buckman cannot report on region, employees/supervised workers by gender. |
| G4-11 | Report the percentage of employees covered by collective bargaining agreements. | 14 | |
| G4-12 | Describe the organization's supply chain. | 20 | |
| G4-13 | Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain. | There are no significant organizational or supply chain changes to report. | |
| G4-14 | Report whether and how the precautionary approach or principle is addressed by the organization. | Buckman supports the Precautionary Principle as defined in Principle 15 of the Rio Declaration. As a responsible corporate citizen, Buckman uses well-defined processes for assessing and managing risks. Our processes of managing and evaluating risk include hazard identification, exposure assessment and risk assessment of current products as well as those currently being researched and developed. | |
| G4-15 | List externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses. | <ul style="list-style-type: none"> • ISO 9001 • ISO 14001 • OHSAS 18001 (in many of our operating companies) • Carbon Disclosure Project (CDP) • EcoVadis • EPA-endorsed "12 Principles of Green Chemistry" • Sedex | |

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|-----------|--|--|-----------|
| G4-16 | List memberships of associations (such as industry associations) and national or international advocacy organizations. | <ul style="list-style-type: none"> • American Chemical Society (US) • American Society for Microbiology (ASM) • Argentine Leather Industry Chemists and Technicians Association (AAQTIC) • Association of Chemical Pulp and Paper Chemists and Engineers (ZELLCHEMING) • Belgian Federation for Chemistry and Life Sciences Industries (essenscia) – Europe • BLC Leather Technology Center • Brazilian Chemical Industry Association (ABIQUIM) • Brazilian Association of Metallurgy, Materials and Mining (ABM) • Center for the Brazilian Tanning Industry (CICB) • Brazilian Association of Sugar & Ethanol Technicians (STAB) • Brazilian Association of Leather Industry Chemists and Technicians (ABQTIC) • Brazilian Pulp and Paper Technical Association (ABTCP) • CANACINTRA – Morelos (Mexico) • Chemical and Allied Industries Association (CAIA) • Chemistry Australia • Confederation of European Paper Industries (CEPI) • COPARMEX – Morelos (Mexico) • Enzyme Technical Association (US) • European Chemical Industry Council (CEFIC) • European Pulp and Paper Chemical Association (EPCG) • European Society for Sugar Technology (ESST) • FIDECOMP – Morelos (Mexico) • Indian Pulp & Paper Technical Association (IPPTA) • Microbiology Society • National Union of Manufacturers of Chemicals for Water Treatment and Sanitation (Syprodeau) • National Association of Sugar and Alcohol Technologists (ANTZA – Italy) • Pulp and Paper Technical Association of Canada (PAPTAC) • Pulp and Paper Technical Institute of Canada (PAPRICAN) • Responsible Packaging Management Association of Southern Africa (RPMASA) • Singapore Business Federation • Society for Industrial Microbiology and Biotechnology (SIMB) • Society of Leather Technologists and Chemists (SLTC) • Technical Association of Pulp and Paper (ATCP) • Technical Association of the Pulp and Paper Industry (TAPPI) • The Federation of Industries of the State of Sao Paulo (FIESP) • The Leather Working Group (Europe) • The Portuguese Association for Technicians of the Pulp & Paper Industry (Tecniceipa – Europe) | |

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|-----------------|-------------|---|-----------|
| G4-16 (cont) | | <ul style="list-style-type: none"> • The Spanish Association of Water Treatment and Control Companies (AQUA ESPANA) • Verband Deutsche Lederindustrie (VDL) • Water Institute of South Africa (WISA) | |

Identified Material Aspects and Boundaries

| | | | |
|-------|---|--|--|
| G4-17 | List all entities included in the organization's consolidated financial statements or equivalent documents. | Bulab Holdings, Inc., is the parent company of Buckman Laboratories International, Inc. and Buckman Laboratories, Inc. In addition, it is the parent company of Buckman Canada, Buckman Mexico, Buckman Southern Cone, Buckman Europe, Buckman South Africa, Buckman Asia and Buckman China. Buckman Laboratories International, Inc., is the administrative service provider to Bulab Holdings, Inc., and its subsidiaries. | |
| G4-18 | Explain the process for defining the report content and the Aspect Boundaries | 8 - 11 | |
| G4-19 | List all the material Aspects identified in the process for defining report content. | 12 | |
| G4-20 | For each material Aspect, report the Aspect Boundary within the organization. Report whether the Aspect is material within the organization | 12 | |
| G4-21 | For each material Aspect, report the Aspect Boundary outside the organization. | 12 | |
| G4-22 | Report the effect of any re-statements of information provided in previous reports, and the reasons for such restatements. | We have made no material restatements of information provided in previous Reports. | |
| G4-23 | Report significant changes from previous reporting periods in the Scope and Aspect Boundaries. | We have made no material restatements of information provided in previous Reports. | |

Stakeholder Engagement

| | | | |
|-------|---|--------|--|
| G4-24 | Provide a list of stakeholder groups engaged by the organization. | 8 - 11 | |
| G4-25 | Report the basis for identification and selection of stakeholders with whom to engage. | 8 - 11 | |
| G4-26 | Report the organization's approach to stakeholder engagement. | 8 - 11 | |
| G4-27 | Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns. | 8 - 11 | |

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|---------------------------------|---|---|--|
| Report Profile | | | |
| G4-28 | Reporting period for information provided. | 27 | |
| G4-29 | Date of most recent previous report. | 27 | |
| G4-30 | Reporting cycle. | 27 | |
| G4-31 | Provide the contact point for questions regarding the report or its contents. | 27 | |
| G4-32 | Report the 'in accordance' option the organization has chosen. | 27 | |
| G4-33 | Report the organization's policy and current practice with regard to seeking external assurance for the report. | 27 | |
| Governance | | | |
| G4-34 | Report the governance structure of the organization, including committees of the highest governance body. | Bulab Holdings, Inc., is governed by a seven-member Board of Directors, a majority of whom are outside directors (not full-time employees). Committees within the board include: Audit, Compensation, Risk Management, Capital Stock and Executive. All except the Executive Committee and Capital Stock committees are chaired by outside directors. | |
| Ethics & Integrity | | | |
| G4-56 | Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics. | 18 | |
| Economic Performance | | | |
| G4-EC1 | Direct economic value generated and distributed | 20 | |
| Environmental: Materials | | | |
| G4-EN1 | Materials used by weight or volume | | Currently unavailable. Buckman does not currently report on materials used by weight or volume but will evaluate how we can capture this information for future reporting. |
| Environmental: Energy | | | |
| G4-EN3 | Energy consumption within the organization | 24, 28 - 29 | |
| G4-EN5 | Energy intensity | 24, 28 - 29 | |

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|---|---|---|--|
| Environmental: Water | | | |
| G4-EN8 | Total water withdrawal by source | 24, 30 | |
| G4-EN10 | Percentage and total volume of water recycled and reused. | | Currently unavailable. Buckman does not currently report on percentage and volume of water recycled and reused but will evaluate how we can capture this information for future reporting. |
| Environmental: Emissions | | | |
| G4-EN15 | Direct greenhouse gas (GHG) emissions (scope 1) | 25, 31 | |
| G4-EN16 | Energy indirect greenhouse gas (GHG) emissions (scope 2) | 25, 32 | |
| G4-EN18 | Greenhouse gas (GHG) emissions intensity | 25, 33 | |
| Environmental: Effluents and Waste | | | |
| G4-EN22 | Total water discharge by quality and destination | 26, 34 | |
| G4-EN23 | Total weight of waste by type and disposal method | 26, 35 | |
| G4-EN24 | Total number and volume of significant spills | Buckman did not incur any significant spills in 2016. | |
| Environmental: Compliance | | | |
| G4-EN29 | Monetary value significant fines and total number of nonmonetary sanctions for noncompliance with environmental laws and regulations | No fines or nonmonetary sanctions were levied against any Buckman facility in 2016. | |
| Environmental: Supplier Environmental Assessment | | | |
| G4-EN32 | Percentage of new suppliers that were screened using environmental criteria | 20 Currently, 100% of Buckman's raw material and PFT suppliers are screened using environmental criteria per our ISO Quality/ Environmental Registered supplier qualification process. | |
| Labor Practices: Employment | | | |
| G4-LA1 | Total number and rates of new employee hires and employee turnover by age group, gender and region | 14 | Currently unavailable. Buckman does not currently report new hire or retention rates by region. We are evaluating the availability of information and will have an update in our 2018 Sustainability Report. |
| G4-LA2 | Benefits provided to full-time employees that are not prohibited to temporary or part-time employees, by significant locations of operation | 15 | |

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|--|--|---|--|
| Labor Practices: Occupational Health and Safety | | | |
| G4-LA5 | Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs | 16 | |
| G4-LA6 | Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities by region and by gender | 15 | |
| G4-LA8 | Health and safety topics covered by formal agreements with trade unions | 16 | |
| Labor Practices: Training and Education | | | |
| G4-LA9 | Average hours of training per year per employee by gender, and by employee category | 17 | Currently unavailable. Buckman does not currently report on training by gender. We are evaluating the availability of information and will have an update in our 2018 Sustainability Report. |
| G4-LA11 | Percentage of employees receiving regular performance and career-development reviews, by gender and by employee category | 17 | Currently unavailable. Buckman does not currently report on performance/career-development reviews by employee category. |
| Labor Practices: Equal Remuneration for Women and men | | | |
| G4-LA12 | Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity | | Promoting diversity as part of our corporate culture is important to us because it not only further develops our business, but it is also representative of the global customers that we serve. With this in mind, Buckman has an ongoing initiative to increase and ensure a diverse working environment in all of our regions. |
| G4-LA13 | Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation | | Currently unavailable. Buckman is a privately held company and we do not track or disclose this information. |
| Labor Practices: Greivance Mechanisms | | | |
| G4-LA16 | Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms | No non-compliance with laws or regulations at issue, nor any fines or actions related to such non-compliance have been identified within Buckman. | |
| Human Rights: Child Labor | | | |
| G4-HR5 | Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the abolition of child labor | Child labor is not tolerated at Buckman. | |
| G4-HR6 | Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor | Forced labor is not tolerated at Buckman. | |

| INDICATOR | DESCRIPTION | PAGE | OMISSIONS |
|---|--|---|-----------|
| Society: Local Communities | | | |
| G4-S01 | Percentage of operations with implemented local community engagement, impact assessments, and development programs | 21 | |
| Society: Anti-Corruption | | | |
| G4-S03 | Total number and percentage of operations assessed for risks related to corruption and the significant risks identified | 18 | |
| G4-S04 | Communication and training on anti-corruption policies and procedures | 18 | |
| G4-S05 | Confirmed incidents of corruption and actions taken | There have been no reports of any governmental actions, such as investigations, against any Buckman entity or associates for corrupt activity. | |
| Society: Compliance | | | |
| G4-S08 | Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations. | No significant fines were paid for non-compliance with laws and regulations. | |
| Product Responsibility: Customer Health and Safety | | | |
| G4-PR1 | Percentage of significant product and service categories for which health and safety impacts are assessed for improvement | 22 | |
| Product Responsibility: Product and Service Labeling | | | |
| G4-PR3 | Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant products and service categories subject to such information requirements | 22 | |
| G4-PR5 | Results of surveys measuring customer satisfaction | 22 | |
| Product Responsibility: Compliance | | | |
| G4-PR9 | Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services | No non-compliance with laws or regulations at issue, nor any fines or actions related to such non-compliance have been identified within Buckman. | |

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Buckman