

# Safety Manual & Log Book

**CLEAN**  
**& POLISH**  
BUILDING SOLUTIONS

**CLEAN. RESTORE. REPAIR.**

(800) 811-4989 | [www.cleanandpolish.com](http://www.cleanandpolish.com) | [info@cleanandpolish.com](mailto:info@cleanandpolish.com)

## Table of Contents

<b>Key Personnel Contact Information</b>	2
<b>Our Mission</b>	4
<b>Commitment to Safety</b>	5
<b>Ensuring OSHA Compliance</b>	6
<b>Your Team of Affiliates &amp; Alliance Partners</b>	17
<b>Roof Anchor Certification</b>	21
<b>Safety Compliance &amp; Training Procedures</b>	44
<b>Emergency Procedures</b>	48
<b>Contractors Obligations</b>	49
<b>Trade Tools &amp; Equipment</b>	50

**CLEAN. RESTORE. REPAIR.**

## Key Personnel Contact Information

**Scott Gould**  
CEO/Owner

Scott@cleanandpolish.com  
Cell# 301-252-1509  
Office# 301-424-1516, ext. 303

**Lawrence D. Green**  
President

Larry@cleanandpolish.com  
Cell# 302-420-2984  
Office# 301-424-1516, ext. 301

**Mona Erwin, Administrator**  
Certificates of Insurance  
Roof Anchor Certifications

Mona@cleanandpolish.com  
Office# 301-424-1516, ext. 306

**Roberto Torres**  
VP of Operations

Roberto@cleanandpolish.com  
Cell# 240-876-7549  
Office# 301-424-1516, ext. 302

**Jonathan Lopez**  
Director of Safety & OSHA Compliance

Jonathan@cleanandpolish.com  
Cell# 240-205-4384  
Office# 301-424-1516, ext. 317

**David Kelly**  
Operations Manager, CPI

David@cleanandpolish.com  
Cell# 301-760-0009  
Office# 301-424-1516, ext. 305

**Fernando Roa**  
Safety Director/Operations

Fernando@cleanandpolish.com  
Cell# 240-994-1544  
Office# 301-424-1516, ext. 315

**Javier Ferreira**  
Safety/Operations

Javier@cleanandpolish.com  
Cell# 240-672-2073  
Office# 301-424-1516

**Luis Sanjurjo**  
Safety Compliance/Estimating

Luis@cleanandpolish.com  
Cell# 202-276-0359

**Andy Palmieri**  
Branch Manager

Andy@cleanandpolish.com  
Cell# 609-418-0253  
Office# 609-484-0200, ext. 1105

[www.cleanandpolish.com](http://www.cleanandpolish.com) | [www.cpirestoration.net](http://www.cpirestoration.net) | 800-811-4989

**CLEAN. RESTORE. REPAIR.**

## OUR MISSION

To provide the Mid-Atlantic Region with sustainable and cost-effective building solutions in a safe, professional, and courteous manner.



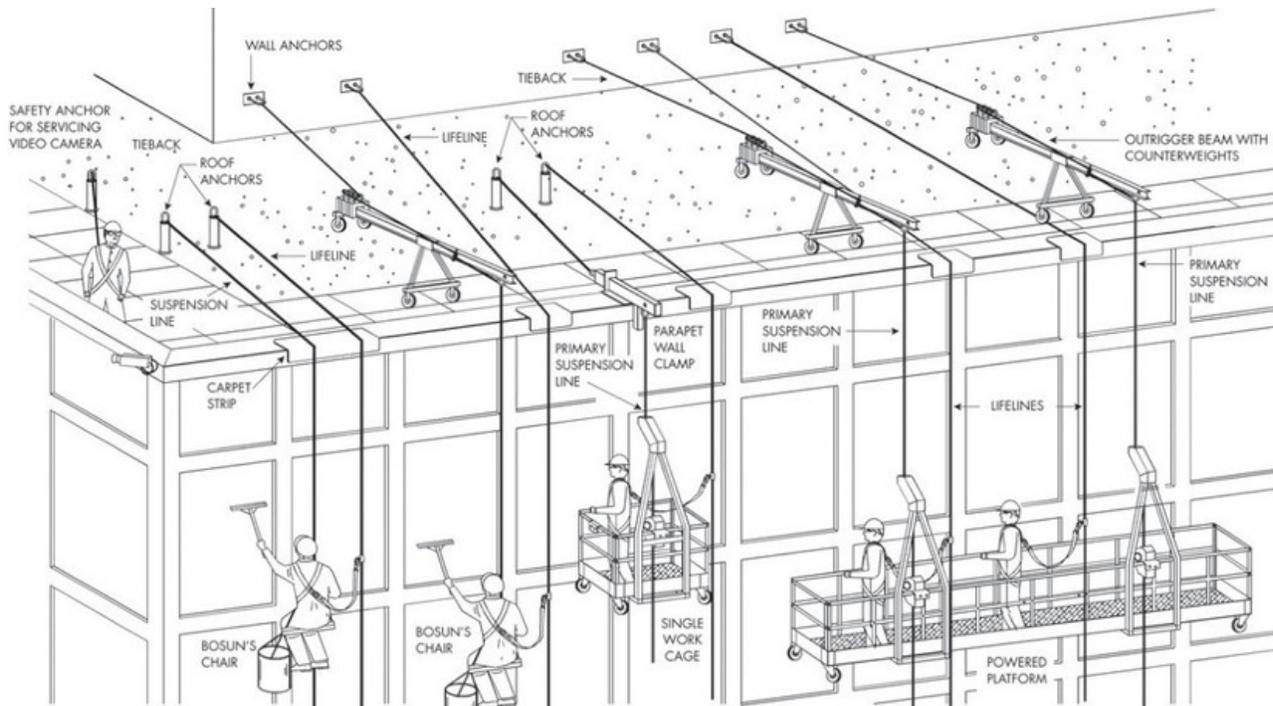
## OUR VALUES

Rooted in the fundamentals of superior service and an unwavering dedication to employee safety. Clean & Polish Building Solutions stands confidently on the experience and diligence that has made the company a success.

**CLEAN. RESTORE. REPAIR.**

# COMMITMENT TO SAFETY

Walking-Working Surfaces Regulations compliance is not just about safety, it is an OSHA requirement. Your Clean & Polish Building Solutions team is committed to doing the following:



- Schedule an independent structural engineer to perform Rooftop Anchorage Inspection, when requested.
- Safety Operational Plan (SOP) stating how Clean & Polish Building Solutions intends to perform their services in accordance to OSHA Regulations.
- Safety Manual/Service Logbook complete with necessary Safety Data Sheets (SDS).
- Daily inspections of Personal Protection Equipment (PPE) - which include a full body harnesses, control descent system device, rope grabs, girth hitch/shock absorbing lanyard, carabiners (D-Rings), ropes (both descent and life lines), seat repelling board. In addition, check on the quality and proper utilization of professional tools like squeegees, channels, rubber blades, mop t-bars and handles, razor blades and suction cups.
- Safety Training for all team members.
- Inspections of all Clean & Polish Building Solutions vehicles.
- Public Protection by the placement of Safety Cones & Safety Tape in all drop zone areas, where Rope Descent System (RDS), Transportable and/or House Rig Scaffold Systems are utilized, Aerial Lift work assignments, Mobile Scaffolds and Ladder (eg. Sectional and Extension Ladders) work assignment are taking place.
- Daily job site inspections of rooftop anchorage points to make sure there are no safety issues and report those issues to building management and to our Safety Operations Team.

## CLEAN. RESTORE. REPAIR.

## OSHA'S Mission

Congress created OSHA to ensure safe and healthful conditions for working men and women by setting and enforcing standards and providing training, outreach, education, and compliance assistance.

Under the OSHA Laws, employers are responsible for providing a safe and healthful workplace for their workers.

### Introduction

On December 29, 1970, President Richard Nixon signed the Occupational Safety and Health Act of 1970 (OSHA Act) into law, establishing OSHA. Coupled with the efforts of employers, workers, safety and health professionals, unions and advocates, OSHA and its state partners have dramatically improved workplace safety, reducing work related deaths and injuries by more than 65 percent.

OSHA estimates that, on average, approximately 202,066 serious (lost-workday) injuries and 345 fatalities occur annually among workers directly affected by the final standard. OSHA's final rule on Walking-Working Surfaces and Personal Fall Protection Systems better protects workers in general industry from these hazards by updating and clarifying standards and adding training and inspection requirements. The rule affects a wide range of workers, from window washers to chimney sweeps. It does not change construction or agricultural standards.

The rule incorporates advances in technology, industry best practices, and national consensus standards to provide effective and cost-efficient worker protection. Specifically, the rule updates general industry standards addressing slip, trip, and fall hazards (subpart D), and adds requirements for personal fall protection systems (subpart I).

OSHA estimates this rule will prevent 29 fatalities & 5,842 lost-workday injuries every year.

More information is available under OSHA Website at [www.osha.gov](http://www.osha.gov).

# CLEAN. RESTORE. REPAIR.

## **What Happened to the ANSI I14.1-2001 Window Cleaning Safety Standard?**

The ANSI IWCA I-14.1-2001 Window Cleaning Safety Standard was developed by the American National Standards Institute (ANSI) in concert with the International Window Cleaning Association (IWCA). Originally this Safety Standard was created to provide a safe environment for building managers, their tenants and the technicians working on their buildings. This Safety Standard was developed and fortified a safe workplace for all their contractors (window cleaners and other building maintenance companies') that would be using Rope Descent System (RDS), Transportable Platform Scaffold Systems, Ladders, Aerial Boom Lifts, etc. on their buildings.

This Safety Standard was recognized over the years in saving dozens of lives and hundreds of accidents since 2001. At the same time, when complying with this safety standard, it was found those property owners and managers, saved their company's millions of dollars in potential liability exposures, when there was a mishap. Even though this standard was dissolved by ANSI on November 30, 2016, the ANSI I 14.1 Safety Standard has recognized by OSHA, dozens of times in the NEW "Walking-Working Surfaces" Regulation text that was set into place on January 18, 2017.

**CLEAN. RESTORE. REPAIR.**

# Ensuring OSHA Compliance: A Team Approach

OSHA Regulations are implemented to ensure the safety of workers and the public. Effective January 17, 2017, OSHA updated the “Final Rule for Walking-Working Surfaces and Personal Protective Equipment” (Fall Protective Systems – 29 CFR 1910 SubPart D and I). The enforcement of the new regulations begins November 20, 2017.

Coordinating and ensuring OSHA compliance can be a hefty project. There are deadlines and potential ramifications if those codes aren’t met. If it all feels a bit overwhelming, we are here to help. We’ve extensively researched and assembled a team of Alliance Partners who are highly qualified in this field. Don’t leave your compliance and the safety of your employees and workers to chance.

We assist you through the process, ensure your property meets certification, and help you meet OSHA regulations. With Clean & Polish Building Solutions as a compliance resource, you’ll have a safer, compliant job site.

## Property Owners & Managers Obligations

**Is Your Rooftop Anchorage Certified?** – OSHA now requires that building owners have permanent roof anchorage and provide written certification of roof anchor testing. That means that your roof anchors must be tested, certified and properly maintained prior to use by any contractor that accesses the façade.

As part of your team, Clean & Polish Building Solutions arranges an independent, third party structural engineering firm to identify, test and certify each anchorage.

**10-year Certification** – The new OSHA regulations require that anchor systems be inspected, tested and certified every 10 years. Any failed anchorage points should be tagged or spray painted for non-usage and later removed from service. Non-compliant access areas can be identified and additional anchorage can be installed where needed.

**Annual Anchorage Inspections** – Building owners must provide written confirmation that permanent roof anchorages have been visually inspected annually by a qualified person.

## Contractors Obligations

**Trained Employees** – Contractors, like Clean & Polish Building Solutions, must provide written proof that workers are properly trained by a qualified person. At CPBS we go above & beyond the standard. Our workers are trained by industry experts including our Safety Operations staff and our in-house “OSHA Authorized General Industry Trainer” who is also recognized as a BUILDING ACCESS SAFETY PROFESSIONAL (BASP).

**Workers' Equipment** – The Personal Protection Equipment (PPE) used by the contractor must be properly designed & maintained. Fall protection is defined by OSHA as “any equipment, device or system that prevents a worker from falling from an elevation or mitigates the effect of such fall”.

**Adhere to Codes, Standards & Licensing** – All work will follow applicable OSHA codes, standards, licensing requirements and laws. OSHA regulations are in place to ensure your building is safe for your workers and ours. Safety is our top priority. Contact Clean & Polish Building Solutions to ensure that your buildings are compliant by calling (800) 811-4989 or email [info@cleanandpolish.com](mailto:info@cleanandpolish.com).

Safety is our  
first priority!

## Your Clean & Polish Building Solutions Safety Team

Led by our President, Lawrence D. Green, BASP (Building Access Safety Professional) our safety and risk management program is one of the best in the country. With over 30 years in the industry, Green who is recognized as an **OSHA Authorized General Industry Trainer and a Certified High Rise Specialist**, holds certificates in Fall Protection, Principles in Fall Protection SAIA Suspended Scaffold Systems, Aerial Lifts, and OSHA 10, 511, 501, and is an OSHA Silica Competent Person Trainer.

### Our Safety Staff

- **Roberto Torres, Vice President of Operations**  
OSHA 10, Certificates in Fall Protection, Personal Protection Equipment (PPE), Power Platform Scaffolds, Aerial Lifts, IWCA Safety Training Program. 30 Years Experience
- **Jonathan Lopez, Director of Safety & OSHA Compliance**  
OSHA 10, Certificates in Fall Protection, Personal Protection Equipment (PPE), IWCA Safety Training Program, Rope Access Training and OSHA Silica Competent Person Trainer, Aerial Lifts.
- **Fernando Roa, Safety/Operations Manager**  
OSHA 10, Certificates in Fall Protection, Personal Protection Equipment (PPE), Aerial Lifts, IWCA Safety Training Program, Ropes Access, Aerial Lifts.  
17 Years Experience
- **Luis Sanjurjo, Safety/Operations Manager/Estimator**  
OSHA 10, Certificates in Fall Protection, Personal Protection Equipment (PPE), Aerial Lifts, IWCA Safety Training Program.  
15 Years Experience
- **Javier Ferreira, Safety/Operations Manager**  
OSHA 10, Certificates in Fall Protection, Personal Protection Equipment (PPE), Aerial Lifts, Rope Access Training and OSHA Silica Competent Person Trainer.
- **David Kelly, Operations Manager, CPI Restoration**  
OSHA 10, Certificates in Fall Protection, Personal Protection Equipment (PPE), Power Platform Scaffolds, Aerial Lifts and OSHA Silica Competent Person Trainer. 27 Years Experience

*All our crews are trained in-house by industry and/or association professionals.*

## Assurances & Availabilities

- ✓ OSHA Compliance – Annual Roof Anchor Inspections and 10 Year Roof Certifications
- ✓ Safety Logbooks
- ✓ OSHA required documentation
- ✓ Building Compliance Reports – for internal audits
- ✓ Site Specific Risk Management Assessment
- ✓ Site Specific (SOP) Safety Operational Compliance Plan
- ✓ Fall Protection & PPE Safety Training for your on-site Management and Engineering Staff
- ✓ \$11 million of insurance protection
- ✓ 3<sup>rd</sup> Party Inspections, Compliance Consultation, and Forensic Engineering

# OSHA Walking-Working Surfaces

## Final SubPart D 1910.27 New Regulations Implemented Effective January 17, 2017

The following information is provided to address the key issues relating to OSHA Requirements published in the Federal Register in November 2016. Clean & Polish Building Solutions view these issues as a shared responsibility between property owners and service providers. OSHA considers the building owner the controlling employer responsible to assure that their anchor system meets the requirements set forth by OSHA. Any contractor that performs services on these properties should be provided with documentation to verify these key issues. \*

### Ensure Fall Protection Key Issues

- 1910.27(b) Rope Descent System-(1) Anchorages (i) requires that before any rope descent system is used, the building owner must inform the employer, in writing, that the building owner has identified, tested, certified, and maintained each anchorage so it is capable of supporting at least 5,000 pounds (268kg) in any direction, for each employee attached. This information must be based on an annual inspection by a qualified person and certification of each anchorage by a qualified person, as necessary and at least every 10 years.
- (b)(ii) the employer must ensure that no employee uses any anchorage before the employer has obtained written information from the building owner that each anchorage meets the requirements of paragraph (b) (1) (i) of this section. The employer must keep the information for the duration of the job.
- (b) (2) (i) No rope descent system is used for heights greater than 300 feet (91m) above grade unless the employer demonstrates that it is not feasible to access such heights by any other means and poses a greater hazard than using a rope descent system.

\*For more information, please visit OSHA's website:

<https://www.osha.gov/walking-working-surfaces/faq.html>

<https://www.osha.gov/walking-working-surfaces/>

CLEAN. RESTORE. REPAIR.

## Provide Written Assurance

As per OSHA regulation OSHA 1910.27(b)(1) "the building owner must inform the employer, in writing, that the building owner has identified, tested, certified, and maintained each anchorage so it is capable of supporting at least 5,000 pounds (268kg) in any direction, for each employee attached. The information must be based on an annual inspection by a qualified person and certification of each anchorage by a qualified person, as necessary and at least every 10 years."

Clean & Polish Building Solutions requests written documentation that anchoring points or any permanent window cleaning equipment at your facility has been initially verified by a licensed professional engineer to be structurally sound. This documentation must be within the past ten years. Annual inspections are also required to these areas and must be inspected by a qualified person. Any anchoring points that fail must be marked out-of-service.

If your building has a permanent window cleaning suspended platform it needs to be inspected before and after each use and properly maintained.

## Request a Written Work Plan

Clean & Polish Building Solutions will provide, upon request, a written Safety Operations Plan (SOP) identifying hazardous areas and the means to overcome them.

- The plan will identify anchor points (based on your assurance) as well as areas where safety barricades are needed to protect the general public.
- The plan may also indicate other hazardous areas where additional means may be needed to resolve unsafe conditions, like working on an unlevelled surface or near sources of live electricity.
- The plan will also include procedures that will be used in case of an emergency.

## Request Documents

- Clean & Polish Building Solutions knows the importance of providing not only the minimum insurance requirements that our customers might require or need, but to exceed those expectations. Therefore, Clean & Polish Building Solutions provides \$11,000,000 of Insurance Protection for its customers. In addition, we provide \$1,000,000 of Fidelity Bonding Coverage for our customer protection. A sample insurance certificate is provided on the next page.
- All methodology, techniques and equipment meet all applicable OSHA, Federal, State and Local regulations. Additional information on the type of high grade specialty equipment that Clean & Polish Building Solutions uses on their contracts are presented at the end of this Safety/Logbook Manual.

CLEAN. RESTORE. REPAIR.



# Roof Anchor Certification & Inspections

## Frequently Asked Questions

### **What is roof anchorage?**

Roof anchorage is any OSHA approved object on the roof that workers can use to tie off lifelines and lanyards.

### **What is the OSHA compliance roof anchor certification deadline?**

OSHA published the deadline for inspection and certification of permanent building anchorage as November 20, 2017.

Clean & Polish Building Solutions and our Alliance Team helps bring you up to OSHA compliance.

### **Are there penalties if my building doesn't comply?**

Yes. You could be cited & fined. Fines are applicable per violation.

### **What happens at the 10-year inspection**

A Professional Engineer (PE) or a qualified designee visually reviews and load tests the anchors that make up the Certified Fall Protection System. The experts then provide a report documenting their findings.

This satisfies the 10 Year Certification requirements.

### **What is involved in an annual inspection**

Every year, a qualified person must visually observe the roof anchorage. The inspector is looking for things like loose or missing parts or damage to an anchor system. Our Alliance Partner, ECS, will provide a written report of the results.

Prior to any work, this report must be presented to any contractor that uses your roof anchor system.

CLEAN. RESTORE. REPAIR.

## OSHA's Final Rule to Update, Align, and Provide Greater Flexibility in its General Industry Walking-Working Surfaces and Fall Protection Standards

### Background

Falls from heights and on the same level (a working surface) are among the leading causes of serious work-related injuries and deaths. OSHA estimates that, on average, approximately 202,066 serious (lost-workday) injuries and 345 fatalities occur annually among workers directly affected by the final standard. OSHA's final rule on Walking-Working Surfaces and Personal Fall Protection Systems better protects workers in general industry from these hazards by updating and clarifying standards and adding training and inspection requirements. The rule affects a wide range of workers, from window washers to chimney sweeps. It does not change construction or agricultural standards.

The rule incorporates advances in technology, industry best practices, and national consensus standards to provide effective and cost-efficient worker protection. Specifically, the rule updates general industry standards addressing slip, trip, and fall hazards (subpart D), and adds requirements for personal fall protection systems (subpart I).

OSHA estimates this rule will prevent 29 fatalities and 5,842 lost-workday injuries every year.

The rule benefits employers by providing greater flexibility in choosing a fall protection system. For example, it eliminates the existing mandate to use guardrails as a primary fall protection method and allows employers to choose from accepted fall protection systems they believe will work best in a particular situation — an approach that has been successful in the construction industry since 1994. In addition, employers will be able to use non-conventional fall protection in certain situations, such as designated areas on low-slope roofs.

As much as possible, OSHA aligned fall protection requirements for general industry with those for construction, easing compliance for employers who perform both types of activities.

For example, the final rule replaces the outdated general industry scaffold standards with a requirement that employers comply with OSHA's construction scaffold standards.

The rule phases out a 1993 exception for the outdoor advertising industry that allows "qualified climbers" to forego fall protection. At least three workers have fallen from fixed ladders under this exception. One of them died. The final rule phases in the fixed ladder fall protection requirements for employers in outdoor advertising.

### Fall Protection Options

The rule requires employers to protect workers from fall hazards along unprotected sides or edges that are at least 4 feet above a lower level. It also sets requirements for fall protection in specific situations, such as hoist areas, runways, areas above dangerous equipment, wall openings, repair pits, stairways, scaffolds, and slaughtering platforms. And it establishes requirements for the performance, inspection, use, and maintenance of personal fall protection systems.

OSHA defines fall protection as "any equipment, device, or system that prevents a worker from falling from an elevation or mitigates the effect of such a fall." Under the final rule, employers may choose from the following fall protection options:

- **Guardrail System** – A barrier erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent workers from falling to a lower level.
- **Safety Net System** – A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling workers before they make contact with a lower level or obstruction.
- **Personal Fall Arrest System** – A system that

arrests/stops a fall before the worker contacts a lower level. Consists of a body harness, anchorage, and connector, and may include a lanyard, deceleration device, lifeline, or a suitable combination. Like OSHA's construction standards, the final rule prohibits the use of body belts as part of a personal fall arrest system.

- **Positioning System** – A system of equipment and connectors that, when used with a body harness or body belt, allows a worker to be supported on an elevated vertical surface, such as a wall or window sill, and work with both hands free.
- **Travel Restraint System** – A combination of an anchorage, anchorage connector, lanyard (or other means of connection), and body support to eliminate the possibility of a worker going over the unprotected edge or side of a walking-working surface.
- **Ladder Safety System** – A system attached to a fixed ladder designed to eliminate or reduce the possibility of a worker falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and body harness. Cages and wells are not considered ladder safety systems.

### Rope Descent Systems

The rule codifies a 1991 OSHA memorandum that permits employers to use Rope Descent Systems (RDS), which consist of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seatboard. These systems are widely used throughout the country to perform elevated work, such as window washing.

The rule adds a 300-foot height limit for the use of RDS. It also requires building owners to affirm in writing that permanent building anchorages used for RDS have been tested, certified, and maintained as capable of supporting 5,000 pounds for each worker attached. This mirrors the requirement in OSHA's Powered Platforms standard.

### Ladder Safety Requirements

Falls from ladders account for 20 percent of all fatal and lost work-day injuries in general industry. The new rule includes requirements to protect workers from falling off fixed and portable ladders

as well as mobile ladder stands and platforms. (The ladder requirements do not apply to ladders used in emergency operations or ladders that are an integral part of or designed into a machine or piece of equipment).

In general, ladders must be capable of supporting their maximum intended load, while mobile ladder stands and platforms must be capable of supporting four times their maximum intended load. Each ladder must be inspected before initial use in a work shift to identify defects that could cause injury.

**Fixed Ladders** – Fixed ladders are permanently attached to a structure, building, or equipment. These include individual-rung ladders, but not ship stairs, step bolts, or manhole steps. The new rule phases in a requirement for employers to have ladder safety or personal fall arrest systems for fixed ladders that extend more than 24 feet, and phases out the use of cages or wells for fall protection under the following timeline: Starting in two years, all new fixed ladders and replacement ladder/ladder sections must have a ladder safety or personal fall protection system. For existing ladders, within two years, employers must install a cage, well, ladder safety system, or personal fall arrest system on fixed ladders that do not have any fall protection. Within 20 years, all ladders extending more than 24 feet must have a ladder safety or personal fall arrest system.

**Portable Ladders** – Portable ladders usually consist of side rails joined at intervals by steps, rungs, or cleats. They can be self-supporting or lean against a supporting structure. The final rule will be easier for employers and workers to understand and follow because it uses flexible performance-based language instead of detailed specification and design requirements. Under the revisions, employers must ensure that: rungs and steps are slip resistant; portable ladders used on slippery surfaces are secured and stabilized; portable ladders are not moved, shifted, or extended while a worker is on them; top steps and caps of stepladders are not used as steps; ladders are not fastened together to provide added length unless designed for such use; and ladders are not placed on boxes, barrels, or other unstable bases to obtain added height.

## Training Requirements

The rule adds a requirement that employers ensure workers who use personal fall protection and work in other specified high hazard situations are trained, and retrained as necessary, about fall and equipment hazards, including fall protection systems. A qualified person must train these workers to correctly: identify and minimize fall hazards; use personal fall protection systems and rope descent systems; and maintain, inspect, and store equipment or systems used for fall protection.

When there is a change in workplace operations or equipment, or the employer believes that a worker would benefit from additional training based on a lack of knowledge or skill, then the worker must be retrained. The training must be provided in a language and vocabulary that workers understand.

## Timeline

Most of the rule will become effective 60 days after it is published in the *Federal Register*, but some provisions have delayed effective dates, including:

- Ensuring exposed workers are trained on fall hazards (6 months),
- Ensuring workers who use equipment covered by the final rule are trained (6 months),
- Inspecting and certifying permanent anchorages for rope descent systems (1 year),

- Installing personal fall arrest or ladder safety systems on new fixed ladders over 24 feet and on replacement ladders/ladder sections, including fixed ladders on outdoor advertising structures (2 years),
- Ensuring existing fixed ladders over 24 feet, including those on outdoor advertising structures, are equipped with a cage, well, personal fall arrest system, or ladder safety system (2 years), and
- Replacing cages and wells (used as fall protection) with ladder safety or personal fall arrest systems on all fixed ladders over 24 feet (20 years).

## Additional information

Additional information on OSHA's rule on walking-working surfaces and personal fall protection systems can be found at [www.osha.gov/walking-working-surfaces](http://www.osha.gov/walking-working-surfaces). OSHA can provide extensive help through a variety of programs, including technical assistance about effective safety and health programs, workplace consultations, and training and education.

For more information on other safety-related issues impacting workers, to report an emergency, fatality, inpatient hospitalization, or to file a confidential complaint, contact your nearest OSHA office, visit [www.osha.gov](http://www.osha.gov), or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

**This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.**

**For assistance, contact us. We can help. It's confidential.**



**[www.osha.gov](http://www.osha.gov) (800) 321-OSHA (6742)**



U.S. Department of Labor

# Your Team of Experts: Alliance Partners

## Clean & Polish Building Solutions

With safety as our top priority, we are proud of the team of industry leaders we've assembled. Our company's president, Lawrence D. Green, BASP, began his career as a chemical consultant and VP & GM with Rodney Square Engineering before joining Clean & Polish Building Solutions in 2002.

As President, Mr. Green directs our safety and risk management initiatives. He routinely consults with leading architects and engineering firms on building safety plans.

## An industry expert in safety compliance

Mr. Green has dedicated much of his career to safety compliance, specifically as it relates to high-rise building maintenance and restoration.

- His experience in this field dates back over 30 years, and he is regarded as an expert on effective safety protocols within the industry. Much of Green's knowledge in this area can be attributed to his involvement with the International Window Cleaning Association. He served as both an Executive Committee and Board Member for 11 years and the organization's President from 2009-2010.
- Green consolidated his expertise in this area by attending every ANSI I 14.1 Safety Standard Committee Meeting since 2002, and assisting in a number of national IWCA or Vendor Sponsored Safety Training Seminars.
- During his tenure at the IWCA, Green developed a series of Regional Safety Training Seminars that routinely take place throughout the United States. The regional seminars continue to run today and involve day-long training programs relating to both the OSHA and the ANSI I 14.1 Safety Standards, to others in the Building Maintenance Industry.
- Green was instrumental in the development of the "Certified Building Maintenance Executive Program" (CBMSE). The initiative recognizes the achievements and education accomplishments of executives in the building maintenance industry. The CBMSE program underwent changes in recent years, becoming the "Building Access Safety Professional Program" (BASP).
- Alongside the BASP designation, Green holds Certificates of Professional Standing from the IWCA, SIAA and has been acknowledged by taking the OSHA 10, Construction & General Industry courses, and the OSHA 511, 501 & Competent Person Fall Protection Training Courses and OSHA SILICA COMPETENT PERSON TRAINER. He is also recognized as an "OSHA Authorized General Industry Trainer".

CLEAN. RESTORE. REPAIR.

## Affiliates

We are proud to be affiliated with our industry's leading associations. Clean & Polish Building Solutions' managing partners are active on the IWCA Board and the ANSI Safety Standards Committees. This involvement in the development and certification of the industry's safety standards allow CPBS to lead the industry in the adoption and implementation of the most current safety regulations.



[www.usgbc.org](http://www.usgbc.org)



[www.boma.org](http://www.boma.org)



[www.iwca.org](http://www.iwca.org)



[www.aoba-metro.org](http://www.aoba-metro.org)



[www.irem.org](http://www.irem.org)



[www.hawdc.com](http://www.hawdc.com)



[www.bscai.org](http://www.bscai.org)



[www.ahla.com](http://www.ahla.com)



[www.pma-dc.org](http://www.pma-dc.org)



[www.sba.gov](http://www.sba.gov)



[www.ifma.org](http://www.ifma.org)

CLEAN. RESTORE. REPAIR.



## OSHA Alliance – ECS

At Clean & Polish Building Solutions, workplace safety and fall prevention is our top priority. If we find areas of the property that are not in compliance with current OSHA and ANSI guidelines, we report these deficiencies to you and assist you with finding alternate means to access those areas or offer other safe solutions.

To promote safety and compliance, CPBS forged an alliance with ECS. Founded in 1988, Engineering Consulting Services (ECS) is a leader in facilities, geotechnical and environmental engineering as well as construction materials testing. Nearly 30 years ago, their goal was to raise the standards of professional consulting engineering by hiring industry professionals who understood the complexities of building and maintaining modern infrastructure. Timely and accurate response is critical for issues of safety, and this arrangement will help ensure that CPBS customers are given priority in site visits and replies to inquiries.

The ECS Facilities Group provides a wide range of investigation and evaluation services for existing structures and associated areas including:

**Structural Evaluations** to assess deterioration and damage issues, change of in-service use, mechanical equipment upgrades, conditions after over load events and retaining walls.

**Fall Protection Testing and Certification** to help ensure that a building's fall protection system, typically provided by roof anchors, is properly documented and certified. (Note: window washing crews and others also use these anchor systems to provide building maintenance).

**Forensic Engineering** to help determine the nature of building system(s) and / or component failures – everything from the performance of the overall façade or superstructure to the condition of connection welds and bolts.

Many contractors will say that they can perform work safely from your roof; however they may be placing you, your property, and their workers at great risk. Our team will help you reduce the risk of unnecessary lawsuits resulting from a contractor who does not take the time or have the knowledge to perform work safely.

Clean & Polish Building Solutions and ECS are available to consult with any interested persons on the status of existing Rooftop Anchorage Systems on their properties. We work with you until your roof is fully OSHA compliant.

**ECS Mid-Atlantic, LLC** Contact:  
Michael Sladki, P.E. Office Phone: 703-471-8400  
Email: [MSladki@ecslimited.com](mailto:MSladki@ecslimited.com)

## OSHA Alliance – Summit Anchor

Summit Anchor is serious about the anchorage systems they design, manufacture, install, inspect, test, and certify. In fact, 20 years ago, their company's owner and founder, Gus Strats, used the knowledge he had gained through the operation of his high-rise maintenance business to develop a fall protection equipment manufacturing company that has installed, tested, and certified anchorage systems for RDS on hundreds of buildings through-out the USA. Gus currently serves on the ANSI A120 Powered Platform for Building Maintenance committee and served on the committee that developed the ANSI/IWCA 1.14 Window Cleaning Safety Standard. As a company, Summit understands the importance of working safely at height along with the complexity involved with the design and installation of OSHA compliant systems.

Along with the help of Summit Anchor, let us help you bring your property into compliance with the new OSHA Regulation. Our team is fully knowledgeable and ready to help you with everything from design to certification of OSHA compliant rope decent systems and fall protection systems.

Clean & Polish Building Solutions provides the support you need to maintain your building compliance with the Final Rule for Walking/Working Surfaces and Personal Protective Equipment (Fall Protective Systems – 29 CFR 1910 SubPart D&I) in January 17, 2017.

If you would like Summit to review your building for compliance to the new OSHA Regulation, please contact us with the following:

- Roof plan(s) (both architectural and structural)
- Architectural elevations



# Roof Anchor Certification

You should keep a copy of your current 10-year Roof Anchor Load Testing and Certification documents and the Annual Fall Protection Assessment documents for quick reference.

**Roof Anchor Certification** is an aspect of building maintenance that can be provided to aid the building owner in his/her effort to establish due diligence in providing a safe working environment.

**What is roof certification?** Roof certification is the process of evaluating and testing the roof top exterior building maintenance installations.

In the event you choose to have the building's roof anchors inspected or have anchors installed, Clean & Polish Building Solutions can coordinate these services for your company.

## Sample Documents

- Example 1 – 10-year Roof Anchor Certification
- Example 2 – Annual Roof Anchor Observation



10 YEAR ROOF ANCHOR LOAD TESTING AND CERTIFICATION FOR

123 ANYSTREET  
ANYCITY, ANYSTATE  
ECS PROJECT NO. 46:SAMPLE

FOR

CLEAN & POLISH BUILDING SOLUTIONS

JANUARY 1, 2017





January 1, 2017

Mona Erwin  
Clean & Polish Building Solutions  
7361 Calhoun Place  
Rockville, Maryland 20855

ECS Project No.46:Sample

Reference: Roof Anchor Load Testing and Certification at, Anyplace, 123 Anystreet, Anycity, Anystate

Dear Ms. Mona Erwin:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide you with the results of our Roof Anchorage Testing for Anyplace, located in Anycity,Anystate.

Anchors were tested to determine adequacy as fall protection anchorages. The anchors tested on this date were determined to be in compliance with the OSHA Final Rule and are acceptable for use based on the testing. The anchors qualify for 10-year certification per the OSHA Final Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems – 29 CFR 1910 SubPart D and I).

The attached report includes a summary of work performed, test results, and conclusions.

It has been our pleasure to be of service to you on this project. Should you have any questions or comments with regard to the conclusions stated herein, please feel free to contact us at your convenience.

Respectfully,

ECS Mid-Atlantic, LLC

Signature for Unknown User  
Unknown User  
email  
phone

Signature for Unknown User  
Unknown User  
email  
phone

**TABLE OF CONTENTS**

**PAGE**

**1.0 INTRODUCTION ..... 1**

    1.1 Project Information ..... 1

    1.2 Background ..... 1

**2.0 LOAD TEST PROCEDURE ..... 2**

**3.0 RESULTS ..... 4**

**4.0 CONCLUSIONS AND RECOMMENDATIONS ..... 5**

DRAFT



## TABLE OF APPENDICES

Appendix I: Roof Anchor Layout

DRAFT

## 1.0 INTRODUCTION

### 1.1 Project Information

On January 1, 2017, ECS performed load testing of anchors for 10 year certification per the OSHA Final Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems – 29 CFR 1910 SubPart D and I), Effective January 17, 2017. The results of our testing and conclusions/recommendations for use of the anchors as roof anchorages have been documented in the following Testing Log. Anchorage numbers shown in the key on the following page correspond to the numbering system used in the Testing Log.

### 1.2 Background

Effective January 17, 2017, OSHA initiated the Final Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems – 29 CFR 1910 SubPart D and I). Under this standard, the window cleaning contractor must provide the building owner with proof that workers are properly trained; equipment utilized by the contractor is properly designed and maintained; and that all work will follow applicable codes, standards, licensing requirements and laws. Likewise, the building owner needs to provide the window cleaning contractor with written certification that permanent RDS anchorages have been tested, certified, and maintained before employees use them..

- ECS provided load testing on the roof anchorages as required for anchor system certification by the OSHA Final Rule. Load testing will provide a baseline assessment for which to proceed with annual observations/inspections. Specifically, ECS load tested the existing anchor points to a load of 2,500 pounds (lbs).

## 2.0 LOAD TEST PROCEDURE

Load testing was performed on the anchors for use as tie-off anchorages with the use of the OSHA Final Rule as a guideline. For each test, two anchorages were tested against each other simultaneously. An Enerpac Series 653, 2-Ton capacity, lever operated hoist was utilized to apply the test load of 2,500 pounds (lbs) to the anchorages. The applied load was monitored with a 10,000 lb capacity, digital dynamometer. These components can be seen in Figure 1.



**Figure 1. Loading Components**

Deflection of anchorages was determined by measuring the distance between the anchorages and a fixed point before loading, at the maximum load, and once again after removing the load from the anchorage. Anchorages that exhibit permanent deflection are considered to have failed and should be removed from service immediately.

The following load testing procedure was utilized for each anchorage:

1. An initial load of 500 lbs was applied to the two anchorages simultaneously. Initial measurements were taken from each anchorage being tested to a fixed point and recorded.
2. Load was applied gradually via the lever hoist (and read via the dynamometer) to 40% of the ultimate test load (1,000 lbs) and held for 2 minutes (approximate).
3. Load was increased to 60% of the maximum test load (1,500 lbs) and held for 2 minutes.
4. Load was increased to 80% of the maximum test load (2,000 lbs) and held for 2 minutes.
5. Load was increased to the maximum test load (2,500 lbs) and held for 5 minutes. Measurements were taken of the ultimate deflection of each anchorage and recorded.
6. Load was released gradually until the anchorages returned to a load of 500 lbs. Final distance measurements from the anchorages and recorded.

Testing of anchorages that exhibit a significant amount of movement (deflection) prior to reaching the ultimate load of 2,500 pounds is to be stopped so as not to damage the roof structure. These anchorages are considered to have failed, and must be taken out of use immediately.

### 3.0 RESULTS

#### SmartTable

Test Number	Anchors Tested	Permanent Deflection (Yes/No)
1	1-2	No
2	3-4	No
3	5-6	No
4	7-8	No

DRAFT

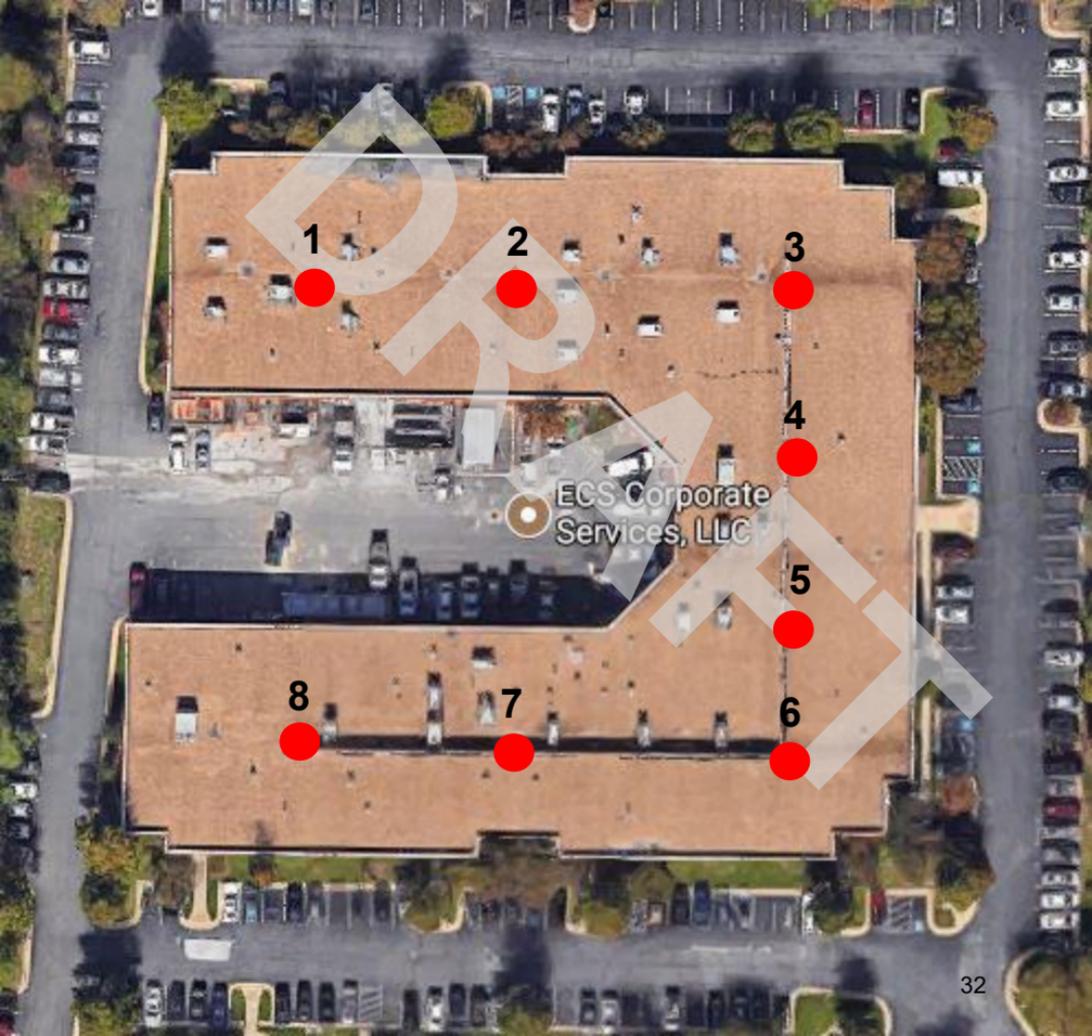
#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

Anchors to be used as fall protection anchorages tested on this date were determined to be in compliance with the Final Rule and are acceptable for use as a single person tie-off points based on the testing. The anchors qualify for 10-year certification per the OSHA Final Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems – 29 CFR 1910 SubPart D and I).

ECS recommends the following for the certified anchorages:

1. Yearly visual observations be performed and documented in the building log book in accordance with the Final Rule Standard.
2. Visual observation of each anchor point before use.
3. Load testing of 100% of the anchor points every 10 years (or after re-roofing). Note, 100% load testing after a 10 year period is not required if a representative sample of 10% of anchor points are tested annually.
4. Load testing of any anchor point showing signs damage or distress.

# **Appendix I: Roof Anchor Layout**



1

2

3

4

5

6

7

8

ECS Corporate Services, LLC

# Annual Fall Protection Observations



ANNUAL FALL PROTECTION ASSESSMENT

123 ANYSTREET  
ANYCITY, ANYSTATE  
ECS PROJECT NO. 46:SAMPLE

FOR

CLEAN & POLISH BUILDING SOLUTIONS, INC.

REPORT DATE





Report Date

Mona Erwin  
Clean & Polish Building Solutions, Inc.  
7361 Calhoun Place  
Rockville, Maryland 20855

ECS Project No.46:Sample

Reference: Annual Fall Protection Observation Report, Anyplace, USA, 123 Anystreet, Anycity, Anystate

Dear Ms. Mona Erwin:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide you with the results of our Annual Fall Protection Observations for the Anyplace, USA, located in Anycity,Anystate.

We are pleased to have this opportunity to provide our services to you on this project. If you have any questions or comments concerning this report, please do not hesitate to contact us.

ECS Mid-Atlantic, LLC

Signature for Unknown User  
Unknown User  
Assessor  
Email  
Phone

Signature for Unknown User  
Unknown User  
Reviewer  
Email  
Phone

<b>TABLE OF CONTENTS</b>		<b>PAGE</b>
<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Project Information .....	1
1.2	Scope of Services .....	1
1.3	Limitations .....	1
1.4	OSHA Summary .....	1
<b>2.0</b>	<b>ANCHOR TYPE 1</b> .....	<b>3</b>
2.1	Conditions Observed .....	3
<b>3.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b> .....	<b>4</b>

DRAFT

## TABLE OF APPENDICES

Appendix I: Roof Anchor Layout

Appendix II: OSHA Final Rule FAQ

DRAFT

## 1.0 INTRODUCTION

### 1.1 Project Information

(ECS) is pleased to provide you with the results of our Annual Fall Protection Observations for Anyplace, USA located in Anycity,Anystate .

To maintain compliance with the OSHA Final Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems – 29 CFR 1910 SubPart D and I), Effective January 17, 2017, an initial/ten-year certification is required for the fall protection system with visual inspections performed annually until the ten year certification period expires (or re-roofing, a change to the structural roof construction or a fall incident occurs). This report provides a summary of our visual observations based on an initial/ten-year certification having occurred on (date) as described in the (report) dated (date of 10-year report). **At this time, a report documenting the 10-year certification has / has not been provided to ECS.**

### 1.2 Scope of Services

ECS was requested to observe the condition of the fall protection anchorages for indications of damage (ex. bending, tearing, weld fracture, etc.) and deterioration (ex. rust) to satisfy the annual inspection requirement.

The results of our observations and conclusions/recommendations for the use of the roof anchorages have been documented in the following Visual Observation Log. Anchorage numbers shown in the key correspond to the numbering system used in the Observation Log. The Contractor Use Plan should be utilized to ensure proper use of the devices.

### 1.3 Limitations

ECS shall not be responsible for deficient anchorage conditions that would not have been readily visible from the rooftop surface. ECS can provide testing and certification of the fall protection system as part of additional services.

Attached to this report are representative photographs to show different anchorage conditions. Though only a sampling of photographs is provided below, photographic documentation of each observed anchorage is kept on file by ECS. Specific anchorage photos are available upon request.

### 1.4 OSHA Summary

OSHA recently adopted a Final Rule for Walking/Working Surfaces in January 17, 2017. OSHA now requires that Building Owners provide to any contractor accessing their façade written documentation that they have a permanent, dedicated anchor system that is identified, tested, certified, installed and maintained before use. The process generally is that anchors should be load tested and certified every 10 years (or when there is cause to question their capacity) and that they should be inspected annually to verify that they are still in acceptable condition based on the previous load test certification.

OSHA COMPLIANCE CHECK		
Yes/ No	Required by OSHA	Comments
Yes/ No	10 - year certification/ load test	
Yes/ No	Identifiable anchorage system	
Yes/ No	Some areas of the facade appear generally accessible	
Yes/ No	Secondary tie off points	
Yes/ No	Contractor use plan	
Yes/ No	Anchor condition is adequate (ie, no damage rendering unusable)	
Yes/ No	Known assessment history	
Yes/ No	<b>IS SYSTEM FULLY OSHA COMPLIANT ?</b>	
<p><b>Although the condition of the anchors appears adequate, the system is not fully compliant with OSHA requirements. At this time a 10-year load test and compliance audit/ contractor use plan is recommend. ECS will prepare a proposal for this work.</b></p>		

## 2.0 ANCHOR TYPE 1

### 2.1 Conditions Observed

Surface rust was observed to be present on some of the anchorages. If left untreated, the affected areas will continue to corrode until the safety and structural performance of the anchorages are compromised. ECS recommends that anchorages noted to have surface rust be cleaned (with a wire wheel or other means and methods) and re-painted with two coats of zinc-rich cold-galvanizing spray. This work should be performed as part of regularly planned building maintenance.

Observers Name: Unknown User

Date of Observation: January 1, 2017

Location: 123 Anystreet, Anycity, Anystate

#### Observation Key

- |                          |                          |
|--------------------------|--------------------------|
| A - No conditions noted  | E - Major corrosion      |
| B - Minor paint chipping | F - Weld, good condition |
| C - Major paint chipping | G - Weld, failures noted |
| D - Minor surface rust   | H - Miscellaneous        |

OBSERVATION SUMMARY LOG			
Anchorage No.	Observations	Condition	Notes
1	D	Adequate (OK)	
2	A	Adequate (OK)	
3	D	Adequate (OK)	
4	A	Adequate (OK)	
5	D	Adequate (OK)	
6	A	Adequate (OK)	
7	D	Adequate (OK)	
8	A	Adequate (OK)	

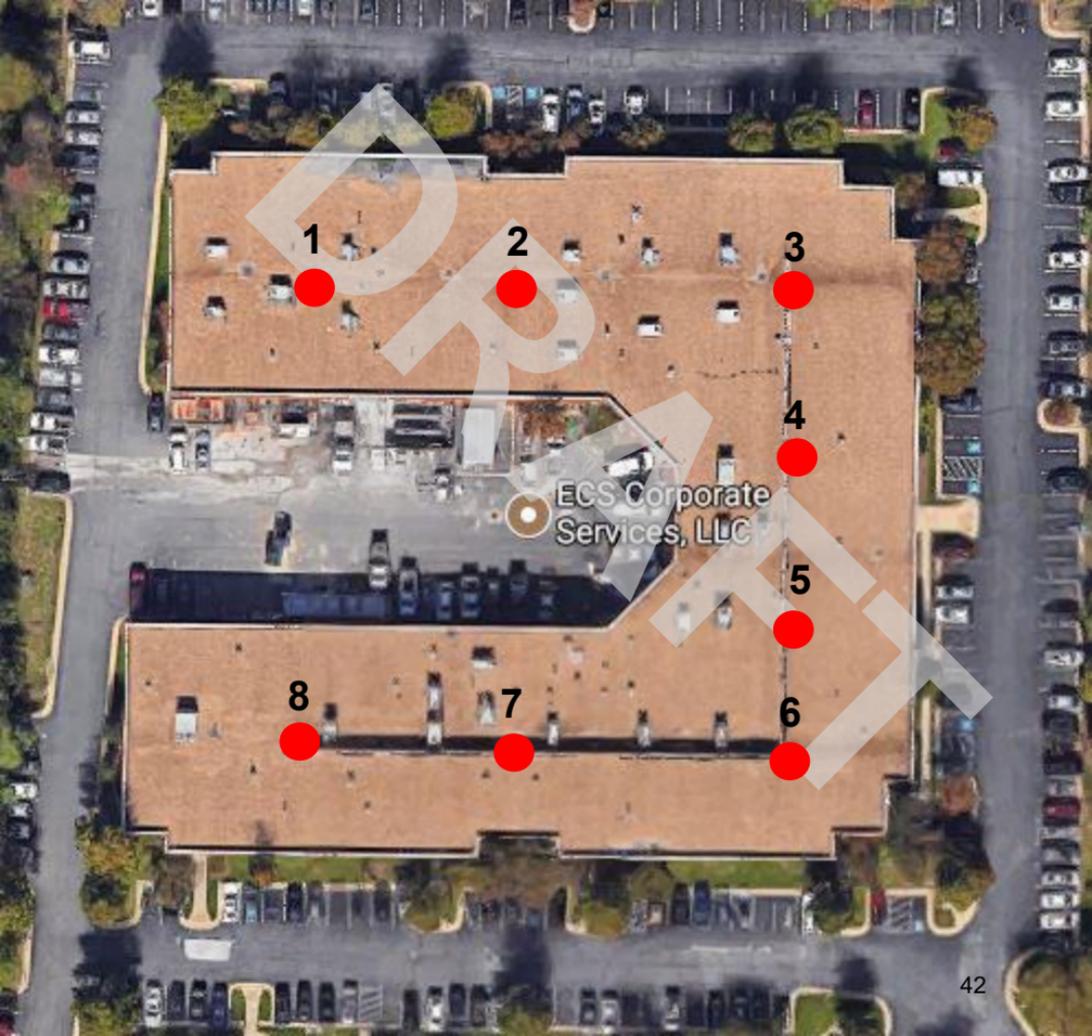
### 3.0 CONCLUSIONS AND RECOMMENDATIONS

The overall observed condition of the anchors as a fall protection systems at the building (123 Anystreet) were determined to be (not adequate / adequate). Certified equipment is to be provided by others for tying to the penthouse structure or columns.

As stated above, this report is based on visual observations only and on an initial/ten-year certification having occurred on or after January 2007. 10-year certification is required to be in compliance with the OSHA Final Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems – 29 CFR 1910 SubPart D and I), Effective January 17, 2017. ECS shall not be responsible for deficient anchorage conditions that would not have been readily visible from the rooftop surface. ECS can provide testing and certification of the fall protection system as part of additional services.

**Although the condition of the anchors appears adequate, the system is not fully compliant with OSHA requirements. At this time a 10-year load test and compliance audit/contractor use plan is required. Per the OSHA Final Rule, building owners have until November 20, 2017, to comply with the ruling. See attached FAQ from OSHA.**

# **Appendix I: Roof Anchor Layout**



1

2

3

4

5

6

8

7

ECS Corporate Services, LLC

# Safety Compliance & Training Procedures

Clean & Polish Building Solutions workers are placed into a specific crew that cultivates growth potential to maximize safety and productivity. Each crew consists of one field manager and/or supervisor and four to six crew members. Each supervisor has an average minimum of twelve years' experience in the industry. The average crewmember working for our company has at least eight years of experience working in the industry.

Clean & Polish Building Solutions has a comprehensive safety and training program in place. The program consists of classroom training as well as hands on field training. This program applies to all workers, whether they are supervisors or crewmembers.



CLEAN. RESTORE. REPAIR.

# Classroom Training

Clean & Polish Building Solutions supervisors and crew members are all educated in the use and inspection of all equipment and rescue techniques. The seminar, called the Clean & Polish Building Solutions "Safety-Training Program", reviews OSHA Regulations and the use and inspection of the following equipment and procedures:

- Chemical Use - HAZMAT Program
- Sectional Ladders and Extension Ladder
- Tower Scaffolding
- Hi-Reach Mobile Lifts
- Suspended Scaffolding
- Permanent Installations
- Controlled Descent Equipment
- Rescue (individual self and buddy methodology)
- Fall Protection
- General Safety
- Personal Protection Equipment (PPE)
- Rope Access Training

Our President, Lawrence D. Green, BASP is one of the few trained instructor/facilitators for our industry in the country. He has been credited in the development of the IWCA Regional Safety Training Program held semi-annually or more throughout the United States for over the past 20 years. This program has been recognized in the prevention of scores of accidents and has helped improve the safety awareness for many of the workers in our industry throughout the country.

Clean & Polish Building Solutions has worked with our vendors and suppliers. They have provided us with their expert up to date product knowledge relating to hi-reach lifts, scaffolding, safety equipment, etc. Our workers are trained by the vendor's safety director and/or manufacturer's representative in the use of specified equipment. We also worked closely with one well known industry manufacturer in the design and manufacturing of safety equipment specifically for our company as well as for industry.

We have developed a companywide Safety & Compliance Manual that meets and exceeds OSHA standards. This manual is reviewed and updated for each of the company's three offices for the safety and interest of all our field workers. Clean & Polish Building Solutions requires that each vehicle has a binder supplied with the Safety Data Sheets (SDS) of all the chemicals it utilizes in the field.

CLEAN. RESTORE. REPAIR.

# Hands on Field Training

Clean & Polish Building Solutions' Vice President of Operations and Safety Compliance and his staff of Managers are responsible for a multitude of tasks, that together further enhances our ability to provide consistent quality and safe operations. The responsibilities of our Safety Technician include:

1. Training of all new workers.
2. Supervises the daily inspections by crew supervisors.
3. Inspects all equipment and machinery.
4. Conducts safety meetings.
5. Attends initial Safety Seminars and Training Classes for introduction of new equipment.

Prior to the services being rendered Clean & Polish Building Solutions Operations Manager assigns each Crew Supervisor(s) and their crew a specific job assignment. Each Crew Supervisor is given a CPBS Safety Operations Plan that relates to the job assignment being performed that day. The Operations Plan identifies specific equipment necessary in order to perform that day's particular assignment in a safe manner. It also outlines the safety precautions that need to be addressed when performing each step of an assignment. The supervisor of each crew inspects not only his equipment, but also each worker and their respective equipment. The inspection consists of the following:

1. Inspection to insure proper rigging.
2. Checking all safety lines.
3. Safety cords attached to all equipment.
4. Rope abrasion protection.
5. Insure proper placement of pedestrian control and vehicular traffic on job site.
6. Proper company uniform.
7. Traffic guard for work above garage entrances.
8. Daily inspection of ropes for signs of wear and tear.

As per corporate policy, each step is reviewed and implemented. Safety barriers are erected and marked per OSHA requirements. If available, the crew supervisor reviews the roof diagram (usually placed on the roof exit door) and reviews with his crew the acceptable tie-offs to the appropriate anchors. Members of the crew are paired off in a buddy system with the crew supervisor(s) situated in most cases in the middle of his team to ensure the safety of the crew.

## **Informational Resources:**

[www.osha.gov](http://www.osha.gov)      Occupational Safety and Health Administration  
[www.ansi.org](http://www.ansi.org)      American National Standards Institute  
[www.iwca.org](http://www.iwca.org)      International Window Cleaning Association

## Verified Trained Workers

OSHA Regulations 1910.30 Training Requirements states

a) Fall hazards

(1) Before any employee is exposed to a fall hazard, the employer is must provide training, for each employee who uses fall protection systems or who is required to be trained as specified elsewhere in this subpart. Employers must ensure employees are trained in the requirements of this paragraph on or before May 17, 2017.

(2) The employer must ensure that each employee is trained by a qualified person.

(3) The employer must train each employee in a least the following topics:

(i) The nature of the fall hazards in the work area and how to recognize them;

(ii) The procedures to be followed to minimize those hazards;

(iii) The correct procedures for installing, inspecting, and disassembling personal fall protection systems that the employee uses; and

(iv) The correct use of fall protection systems and equipment specified in paragraph(a)(1) of this section, including, but limited to, proper hook-up, anchoring, and tie-off techniques, and methods of equipment inspection and storage, as specified by the manufacturer.

## Clean & Polish Building Solutions:

- Has received training by outside Qualified & Competent Professionals and a recognized Safety Training Organization. We also use specialized trained industry workers. In addition, we participate in various professional trade associations.
- CPBS Corporate and Safety/Operational Management Team is heavily involved in the training and the retraining of all Field Supervisors, Managers and Technicians.
- Offers our customers, upon request, documentation showing that the technicians working at their building have been trained and/or retrained in all aspects and requirements set forth under the new OSHA guidelines. The technician is not only qualified to do the task at hand, but has also been trained in Fall Protection and the proper and safe use of Personal Protection Equipment (PPE).
- Has sent our workers, supervisors and managers to the IWCA Safety Training Seminars around the country (e.g., Boston MA, Raleigh NC, Scottsdale AZ, Reno NV, Atlanta GA, Orlando FL and Philadelphia PA) as well as seminars taught at The University of Maryland, College Park and in Fairfax, VA. In addition, we have had a representative attending all the ANSI I 14.1 Window Cleaning Safety Standard for over 14 years.
- Has worked with many of its vendors providing training to its staff and technicians in courses relating to Power Platform Scaffold Systems, Aerial Lift Equipment, Rolling Roof Rigs & Personal Fall Protection Equipment, etc.
- Have many of its staff participate in the IWCA Certification program and Ellis Safety Solutions Fall Protection Course. We are one of the few companies in the country that has sent over 18 members of our staff to obtain their OSHA 10 General Industry Course Card.
- President is recognized for being one of eleven (11) in the country with credentials with the designation as a BASP (Building Access Safety Professional). In addition, with Certificates and Credentials in Fall Protection, Power Platform Systems, Aerial Lifts, etc., he is also one of the only experts in our industry that has also taken the OSHA 10 General Industry & Construction Course program and the OSHA 511 and OSHA 501 Course program. All this has led him to also be recognize as an "OSHA Authorized General Industry Trainer".

**CLEAN. RESTORE. REPAIR.**

# Emergency Procedures

All Clean & Polish Building Solutions crew members working on your building will familiarize themselves with the various exit routes, alarms, the location of the Building Engineer and Management offices, escape routes and emergency procedures from areas and equipment they will use during the work day.

In the event of a building emergency, Clean & Polish Building Solutions crew members will exit the building. If workers are suspended, they will establish communication with building management and determine the nature of the emergency. A safe manner of descent will be employed and equipment will be secured.



Our workers are well trained and know that in cases of equipment malfunction, they are to stop work immediately!

**If it is a non-life threatening situation, they will:**

- 1) Notify a supervisor and the Building Engineer and/or Property Manager.
- 2) Perform the necessary equipment repairs or remove malfunctioning equipment.
- 3) Perform self-rescue or buddy rescue.

**In a life threatening situation the worker will:**

- 1) Call 911,
- 2) Notify a supervisor and the Building Engineer and/or Property Manager.
- 3) Secure the area below our equipment.
- 4) Safely remove crew members from equipment as soon as possible.

**In the event of a weather emergency, they will:**

- 1) Immediately contact workers suspended on equipment (i.e., aerial equipment, RDS or swing stage)
- 2) Secure equipment to the nearest possible safe point.
- 3) Notify the Building Engineer and/or Property Manager, as soon as the equipment and crew members are secure.

CLEAN. RESTORE. REPAIR.

# CONTRACTORS' OBLIGATIONS

In accordance with OSHA's "**Final Rule for Walking-Working Surfaces and Personal Protective Equipment**" (Fall Protective Systems - 29 CFR 1910 SubPart D and I) Clean & Polish Building Solutions is committed to provide the following:

**Trained Workers** - Contractors, like Clean and Polish Building Solutions, will provide written proof that workers are properly trained by a qualified person upon request. At CPBS we go above & beyond the standard. Our workers are trained by industry experts including our in-house OSHA Authorized General Industry Trainer.

**Workers' Equipment** - The Personal Protection Equipment (PPE) used by the contractor must be properly designed & maintained. Fall protection is defined by OSHA as "any equipment, device or system that prevents a worker from falling from an elevation or mitigates the effect of such fall".

**Adhere to Codes, Standards & Licensing** - All work will follow applicable OSHA codes, standards, licensing requirements and laws.

OSHA regulations are in place to ensure your building is safe for your workers and ours. Safety is our top priority. Contact Clean & Polish Building Solutions to ensure that your buildings are compliant by calling (800) 811-4989 or email [info@cleanandpolish.com](mailto:info@cleanandpolish.com)

## PRE-WORK JOB SITE SURVEY

The site has been surveyed by Clean & Polish Building Solutions Building Solutions prior to work commencement.

*Clean & Polish Building Solutions is not a certified structural engineer and this survey in no way absolves the building owner of the responsibility to provide a safe working environment.*

CLEAN. RESTORE. REPAIR.

# Clean & Polish Building Solutions

## Trade Tools and Equipment

The following is a list of equipment and background information on the various pieces of equipment that we utilize when providing your company with professional window cleaning services. The breakdown of this equipment is as follows:

### Professional Window Cleaning Tools

**Brass Handle and Squeegee 18" Channels**-Made by Ettore

**Black Swivel Handle**-Made by Pulex for Specialty Work relating to cleaning difficult windows

**18" Rubber Replacement Blades**-Made by Ettore

**T-Bar (Plastic) & 18" Paddle Cotton Sleeve Covers**-Primarily made by Unger

**Razor Blades-6"**-Made by Triumph. Carbon double-edge blades for utilized in removing debris from glass

**5 Gallon Bucket**-w/Clean & Polish Building Solutions name & number on it. Average fill is 3.5 gallons per bucket

**8'-12'-24' Quick-Lok Aluminum Extension Poles**-Made by Garelick

CLEAN. RESTORE. REPAIR.

## Fall Protection Equipment

**Rope Descent System- Descender** w/Lever Brake Control-Made by MIO Mechanical.

Construction: Primary rope descent device use by technicians in the field, doing most work assignments three floors or higher. Rope wraps around the center shaft and then through a braking mechanism. Lever Brake controls mechanism allows the operator to vary speed and brake at any time. Clean & Polish Building Solutions utilizes solid braided spun nylon ½" rope.

**½" Solid Braided Nylon Rope** Made by Rockford Rope

Construction: Solid Braided Nylon-High tenacity fiber of quality nylon tightly woven to give top notch performance. Color: White Tensile Strength: 6,100 pounds

Length Usage: In most cases 300' or 600' length assigned individually to each technician in the field. Clean & Polish Building Solutions uses this type of rope as a descender line attached to the rope. The Descender is then attached to the Seat Harness Repelling Board.

**7/16" Rope Grab**-Made by MIO Mechanical

Construction: Self trailing, automatically locks in place in case of fall; energy absorbing, easy to attach or remove at any point on the line. Durable light weight stainless steel with gold color push button pin.



-OR-

**7/16" Back-Up Rope Grab** -Made by KONG, IT

Construction: Fall arrester that follows the operator in both direction as a self-trailing device. With its unique locking cam configuration, the Back-Up supports fall factor 2 falls in a semi-dynamic way, without damage to the safety rope. Stops a fall, slide or uncontrolled descent and works on vertical or angle rope. Automatically locks in place in case of fall; energy absorbing, easy to attach or remove at any point on the line. Meets ANSI Z359.1-2007 and OSHA Requirements.

**Shock Absorbing Lanyard**-Made by MIO Mechanical

Construction: An ultra-light design, durable soft-pack energy shock absorbing lanyard. It's compact, lightweight and can reduce the possibility of serious injuries by limiting the arresting force to less than 900 pounds.



-OR-

**Girth Hitch twist 13"** - Made by Yates Gear

**7/16" KM III Static Kernmantle Rope**-Made by New England Rope

Construction: Continuous filament polyester core braided over a nylon core.

Color: White with a blue tracer or blue rope with a white tracer. Tensile Strength: 7500 pounds

Improved abrasion, chemical and UV resistance. Low stretch, non-rotating and easy to knot with low moisture absorption. Length Usage: In most cases 300' or 600' length assigned individually to each technician in the field. Clean & Polish Building Solutions uses this type of rope as a safety line with a Rope Grab attached to it. The Rope Grab is then attached to the full body harness.

**Field Storage Bags**-Made by &/or Distributed by Avalon & PMMG

Construction: Synthetic Storage bag is utilized by field technicians for carrying their Bosun Chair and their Braided Nylon Rope and Static Kernmantle Rope. In many cases technicians will also carry many of their specialty tools in these bags.

CLEAN. RESTORE. REPAIR.

### Triple Locking Carabineer-Kong IT

Several varieties and sizes.

Construction: Average 4.75" to 5.75" with a gate opening of 3/4" to 1.4" Each carabineer maintains a 9,000 to 11,250 pound breaking strength.

Utilization: One Carabineer hook from the Bosun's Chair strap to the Descender.

Professional Technicians also utilize Carabineers for attachment of their Solid Braided Nylon Rope and/or their Static Kernmantle Rope to an anchor point.



### Full Body Harness-Most commonly made by Mechanical, Gemcor & Kong IT

Construction: Lightweight and quick connect hardware for easy on and off use.

Adjustable friction adjustable buckle shoulders and leg straps, with center sternal and dorsal D-Ring attachments.



### Rope Protector-Average 18" in Length - Made &/or Distributed by Avalon



Construction: Heavy-Duty rubber base padded wrap, used to protect repelling line and safety lines from abrasion against rough and sharp edges. These rope protectors are primarily used around the lines at the parapet level of the building, building cornices and for protection around I-Beams and other rough and sharp anchorage.

### Suction Cup Grabbers-Made by Allbac Industries

Single & Double Cups

Construction: Cast Aluminum with Rubber Suction Cups. Utilized by professional technicians in the field for positioning themselves while doing Rope Descent work on the side of a building. Both models have quick release triggers.



### Bosun's Chair-Most commonly made by Sky Genie

Construction: Key element in chair access work or better known today as Rope Descent Systems (RDS). Technician sits on the chair and lowers himself down side of a building.



### Web Slings (I-Beam Straps)-Made by MIO Mechanical

Anchor slings provide an OSHA-compliant anchor point when attached to a structural support capable of supporting at least 5,000 lbs. The anchor slings are made of 1 3/4" wide polyester webbing with 3" wide wear pad to protect against abrasion. Clean & Polish utilizes 6' to 8' lengths.



## Public Protection

### Bungee Tools

Technicians utilize these tools in the connection of their tools (squeegee, paddle war razors, suction cups, etc.) to their bucket, harness and/or seat board. Used primarily during the Rope Descent System (RDS) process to protect the public from being hit while a technician is working on the side of a building.



### Safety Cone Barricade System-Made primarily by Emedco or JBC

36" Yellow, 42" Delineator Post w/12# Base and/or 18"-28"-36" Orange Cones.

Technicians utilize these cones to cordon off the area being worked on at a building.



**Barricade Hula Tape**-3/4" Yellow & Black Nylon, w/pink streamers every 10' on tape 5000# rating. This is the most popular Public Protection Warning Safety Tape that the crews use on job sites that is wrap around the safety cones, to warn the public that maintenance work is being perform above or within the cordon off area of this portion of a job site.

**-OR-**

### Barricade Tape-1" to 3" Yellow Caution Tape

Technicians utilize this tape, in many cases, between safety cones to protect the public from any foreign debris that may fall, by creating a safety zone around the working area.

CLEAN. RESTORE. REPAIR.

## Specialty Equipment

**Sectional Ladders**-Made by Metallic Ladder Manufacturing Corp.

Average 6' Sectional Ladders designed and made specifically for the window cleaning industry. Box Girder side rail construction, using 6061-T6 alloy, rungs and solid cast fittings providing unusual rigidity and stability when assembled. Rugged lightweight construction weighing approximately 11-12 pounds each. When assembled four sections will achieve a height of 21 feet. Lightweight sections make unit easy to transport from one section of a building to another. Maximum weight: 250 pounds.

**Extension Ladders**- Primarily from Metallic, Warner & Louisville Manufacturing Companies  
Average 28'-40'-48'-60' Ladders Heights

**Rolling Portable Roof Riggers**-Made by MIO Mechanical

Aluminum Portable Roof Rigs that are primarily some of the toughest and most versatile roof rigs available. Roof Rigs consist of a three dimensional triangular structure which allows the entire rig to support the load. All stress points of the roof rig are trussed and welded for extra strength and support. Aluminum Rolling Roof Rigs are designed as mobile portable anchor for the technician doing suspended work.

**MIO Roof Riggers: MRR250A-2x8 MAXI**



<b>Model</b>	MRR-28 MAXI
<b>Outreach (ft)</b>	2
<b>Span from front wheels to rear wheels (ft.)</b>	8
<b>Counterweight (lb.)</b>	252 (6@42)
<b>Unit weight (lb.)</b>	145
<b>Counterbalance safety factor</b>	4:1
<b>Distance from roof to anchor point (in.)</b>	52
<b>Inside parapet wall clearance at shoulder (in.)</b>	70
<b>13" diameter Pneumatic Rubber tires</b>	4

**Parapet Clamps**-Made by MIO Mechanical

Designed to be used for manual descending; one suspended worker with a Rope Descent System (RDS). One parapet clamp would be used for the repelling line and a second parapet clamp would be used for the safety line. Easy to attached to the parapet for support. Lightweight and adjustable to fit walls with a thickness of up to 24". Made of heavy duty steel construction with a weight of 40 pounds each. Technicians also utilized this type of system to tie back Rolling Roof Rigs for increase safety in anchoring.

CLEAN. RESTORE. REPAIR.



## MIO Roof Riggers

MIO Roof Riggers are designed as mobile anchor point for suspended worker with Bosun's Chair. MIO Mechanical Corporation manufacturing two types of roof riggers:

**Type MRR250** – for workers who are using Descenders for manual descend.

**Type MPR-38** – Electrical Powered Roof Rigger that intended to be used for lifting or lowering suspended worker with a Bosun's Chair.

All MIO roof riggers incorporate a triangular design for strength and stability. They assemble and disassemble in minutes without tools. Easily positioned, they provide a safe and secure transportable anchorage point. When disassembled, the parts easily fit in any elevator cabin or through any roof hatch. All models feature pneumatic rubber tires with two independent locking brakes. The lower beams are easily lifted up and placed back in seconds, in order to pass over vent pipes and other rooftop obstructions. MIO aluminum roof riggers are available with 3 different frame sizes to fit virtually any roof design, available with 2 or 3 foot outreach.

**“Our riggers are OSHA, CAL. OSHA, and ANSI compliant and are chosen by professionals worldwide for their stability, ease of setup and durable long lasting construction”**

### Applicatons

- Window cleaning
- Painting and sealing
- Building maintenance
- Rescue operations, etc.

Model	Description
MRR250A-2x4 MINI	Roof Rigger. 2ft. outreach with 4ft. base.
MRR250A-2x6 MIDI	Roof Rigger. 2ft. outreach with 6ft. base.
MRR250A-3x6 MIDI	Roof Rigger. 3ft. outreach with 6ft. base.
MRR250A-2x8 MAXI	Roof Rigger. 2ft. outreach with 8ft base.
MRR250A-3x8 MAXI	Roof Rigger. 3ft outreach with 8ft. base.
Parapet Roller. MRR-24P	Parapet Roller. 2ft. outreach with 4ft. base.
Powered Roof Rigger	Powered Roof Rigger. 3ft outreach with 8ft. base.

CLEAN. RESTORE. REPAIR.



MRR250A-2x4 MINI



MRR250A-2x6 MIDI



MRR250A-3x6 MIDI



MRR250A-2x8 MAXI



MRR250A-3x8 MAXI



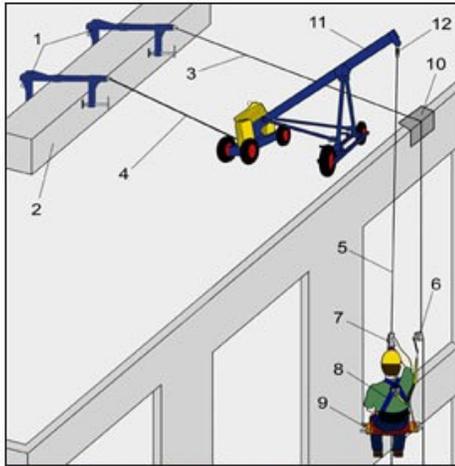
Parapet Roller. MRR-24P



Powered Roof Rigger

## MIO High Rise Systems for suspended worker: Model TA

CLEAN. RESTORE. REPAIR.

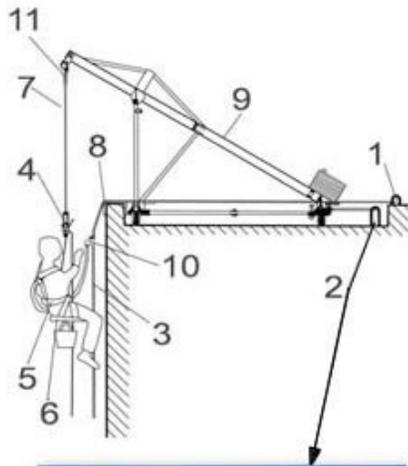


1. Parapet Clamps
2. Parapet
3. Safety Line
4. Tie-Back Line
5. Work Line
6. Rope Grab w/Lanyard
7. Descender
8. Harness
9. Bosun's Chair
10. Rope Protector
11. Roof Rigger
12. Swivel



CLEAN. RESTORE. REPAIR.

## MIO High Rise Systems for suspended worker: Model PA



1. Approved Anchor for Tie-Back Line
2. Approved Fall Arrest Anchor
3. Safety Line
4. Descender
5. Harness
6. Bosun's Chair
7. Work Line
8. Rope Protector
9. Roof Rigger
10. Rope Grab w/Lanyard
11. Swivel



CLEAN. RESTORE. REPAIR.

## Cleaning Chemicals

Safety Data Sheets (SDS) provide a standardized listing of the chemical and physical characteristics of a product and its safe handling procedures in workplace setting (e.g. manufacturing plants, distribution centers and customers' retail stores). Manufacturers have prepared SDS for many of the products in accordance with the Globally Harmonized System of Classification & Labeling (GHS) criteria of the U.S. Occupational Health and Safety Administration (OSHA) workplace regulations.

GHS is an internationally standardized approach to classify the hazards of chemicals and products to which workers may be exposed in an occupational environment. As part of the implementation, new pictograms (symbols) and hazard statements appear on Safety Data Sheets (SDS) and are posted on most manufacturers' websites. For more information about GHS, please visit OSHA's website at [www.OSHA.gov](http://www.OSHA.gov).

The most common chemicals that are utilized by Clean & Polish Building Solutions workers on any job site are Procter & Gamble (P&G) Dawn soap, as well as Austin Co. Ammonia. SDS are provided on the following pages.

### Professional Quality Dawn Soap-Made by Procter & Gamble

A regular window cleaning consists of a dilution of a few ounces of Joy Soap to three and a half (3 ½) gallons of water (see SDS Sheet). This is a low-impact cleaning product (to prevent groundwater pollution and vegetation damage). As a soap detergent it is a fresh cleaning agent that easily removes dirt and other light residue from the glass surfaces. Joy Soap contains both anionic and nonionic surfactants (each of which are biodegradable) and no phosphate.

### Clear Ammonia -Made mostly by Austin's

An excellent cleaning agent that is used in conjunction with mild soap detergent; cuts through most heavy residue substances found on glass surfaces that do not require restoration. The main ingredient is Ammonium Hydroxide and it does not contain Phosphorus.

## LEED Required Cleaning

### **Simple Green All Purpose Cleaner** - Made by Sunshine Makers, Inc.

For regular window cleaning, this concentrated All-Purpose Cleaner is diluted 1:64 (1ounce of concentrate for every ½ gallon of water) for use on hard non-porous surfaces. This is a green seal approved cleaner for LEED buildings. It contains no hazardous components as listed in 29 CFR 1900.1000 or other pertinent OSHA regulations.

# SAFETY DATA SHEET



Issuing Date: 05-Oct-2015

Revision Date: 05-Oct-2015

Version 1

## 1. IDENTIFICATION

<b>Product Name</b>	Dawn Ultra Dishwashing Liquid, Original Scent
<b>Product ID:</b>	97591965_RET_NG
<b>Product Type:</b>	Finished Product - Consumer (Retail) Use Only
<b>Recommended use</b>	Dish Care
<b>Restrictions on Use</b>	Use only as directed on label.
<b>Synonyms</b>	Dawn Ultra Dishwashing Liquid, Pomegranate Awakening (97591967_RET_NG) Dawn Ultra Dishwashing Liquid, Apple Orchard Harvest (97591968_RET_NG)
<b>Manufacturer</b>	PROCTER & GAMBLE - Fabric and Home Care Division Ivorydale Technical Centre 5289 Spring Grove Avenue Cincinnati, Ohio 45217-1087 USA  Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-331-3774
<b>E-mail Address</b>	pgsds.im@pg.com
<b>Emergency Telephone</b>	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

## 2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

**This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.**

<b>Hazard Category</b>	
<b>Eye Damage / Irritation</b>	Category 2B
<b>Signal Word</b>	WARNING
<b>Hazard Statements</b>	Causes eye irritation
<b>Hazard pictograms</b>	None

<b>Precautionary Statements - Prevention</b>	Wash hands thoroughly after handling
<b>Precautionary Statements - Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF SWALLOWED: Drink 1 or 2 glasses of water
<b>Precautionary Statements - Storage</b>	None
<b>Precautionary Statements - Disposal</b>	None
<b>Hazards not otherwise classified (HNOC)</b>	None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	No	68585-47-7	15 - 20
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	No	68585-34-2	5 - 10
Amine oxides, C10-16-alkyldimethyl	Amine oxides, C10-16-alkyldimethyl	No	70592-80-2	5 - 10
Ethanol	Ethanol	No	64-17-5	1 - 5

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

<b>Eye contact</b>	Rinse with plenty of water. Get medical attention immediately if irritation persists.
<b>Skin contact</b>	Rinse with plenty of water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Most important symptoms/effects, acute and delayed</b>	None under normal use conditions.

#### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

### 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray.
<b>Unsuitable Extinguishing Media</b>	None.
<b>Special hazard</b>	None known.
<b>Special protective equipment for fire-fighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Specific hazards arising from the chemical</b>	None.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Use personal protective equipment. Do not get in eyes, on skin, or on clothing.
<b>Advice for emergency responders</b>	Use personal protective equipment as required.

### Methods and materials for containment and cleaning up

<b>Methods for containment</b>	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on safe handling</b>	Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.
--------------------------------	---

### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Incompatible products</b>	None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Ethanol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m <sup>3</sup>	Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m <sup>3</sup>

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWAEV	British Columbia
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	STEL: 1000 ppm	STEL: 1000 ppm

No relevant exposure guidelines for other ingredients

### Exposure controls

**Engineering Measures****Distribution, Workplace and Household Settings:**

Ensure adequate ventilation

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

**Personal Protective Equipment****Eye Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Use appropriate eye protection

**Hand Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Protective gloves

**Skin and Body Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Wear suitable protective clothing

**Respiratory Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

In case of insufficient ventilation wear suitable respiratory equipment

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State @20°C**

liquid

**Appearance**

Various color by product

**Odor**

Scented

**Odor threshold**

No information available

**Property****Values****Note****pH value**

9.0 - 9.2

10% aqueous solution

**Melting/freezing point**

No information available

**Boiling point/boiling range**

100 - 104 °C / 212 - 219 °F

**Flash point**

No Flash to Boiling (NFTB)

**Evaporation rate**

No information available

**Flammability (solid, gas)**

No information available

**Flammability Limits in Air****Upper flammability limit**

No information available

**Lower Flammability Limit**

No information available

**Vapor pressure**

No information available

**Vapor density**

No information available

**Relative density**

1.04

**Water solubility**

100%

**Solubility in other solvents**

No information available

**Partition coefficient: n-octanol/water** No information available**Autoignition temperature**

No information available

**Decomposition temperature**

No information available

**Viscosity of Product** No information available  
**VOC Content (%)** Products comply with US state and federal regulations for VOC content in consumer products.

## 10. STABILITY AND REACTIVITY

**Reactivity** None under normal use conditions.  
**Stability** Stable under normal conditions.  
**Hazardous polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions** None under normal processing.  
**Conditions to Avoid** None under normal processing.  
**Materials to avoid** None in particular.  
**Hazardous Decomposition Products** None under normal use.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Information on likely routes of exposure

**Inhalation** No known effect.  
**Skin contact** No known effect.  
**Ingestion** No known effect.  
**Eye contact** Irritating to eyes.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Acute toxicity** No known effect.  
**Skin corrosion/irritation** No known effect.  
**Serious eye damage/eye irritation** Irritating to eyes.  
**Skin sensitization** No known effect.  
**Respiratory sensitization** No known effect.  
**Germ cell mutagenicity** No known effect.  
**Neurological Effects** No known effect.  
**Reproductive toxicity** No known effect.  
**Developmental toxicity** No known effect.  
**Teratogenicity** No known effect.  
**STOT - single exposure** No known effect.  
**STOT - repeated exposure** No known effect.  
**Target Organ Effects** No known effect.  
**Aspiration hazard** No known effect.  
**Carcinogenicity** No known effect.

### Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	68585-34-2	>2001 mg/kg	-	-

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not expected to be hazardous to the environment.

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.  
**Mobility** No information available.  
**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment**

**Waste from Residues / Unused Products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

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

**California Hazardous Waste Codes (non-household setting)** 331

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**IMDG** Not regulated

**IATA** Not regulated

**15. REGULATORY INFORMATION**

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	CAS-No	Hazardous Substances RQs	Extremely Hazardous Substances RQs	CERCLA/SARA 302 TPQ
Sodium hydroxide	1310-73-2	1000 lb	-	

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following substance(s) which are either listed as hazardous air pollutants (HAPS) or VOC's per the Clean Air Act:

Chemical Name	CAS-No	CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
Phenoxyethanol	122-99-6	X

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CAS-No	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide	1310-73-2	1000 lb	-	-	X

**California Proposition 65**

This product is not subject to warning labeling under California Proposition 65.

### U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
Ethanol	64-17-5	X

Chemical Name	CAS-No	Massachusetts
Ethanol	64-17-5	X

Chemical Name	CAS-No	Pennsylvania
Ethanol	64-17-5	X
Sodium hydroxide	1310-73-2	X
Phenoxyethanol	122-99-6	X

### International Inventories

#### United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

#### Canada

This product is in compliance with CEPA for import by P&G.

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

## 16. OTHER INFORMATION

**Issuing Date:** 05-Oct-2015

**Revision Date:** 05-Oct-2015

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**

## Austin's Ammonia

SDS Number: 69

Revision Date: 5/26/2015

Page 1 of 6

### 1 PRODUCT AND COMPANY IDENTIFICATION

#### Manufacturer

James Austin Company  
115 Downieville Road  
PO Box 827  
Mars, PA 16046

Phone: 724-625-1535  
Fax: 724-625-3288  
Web: www.jamesaustin.com

Product Name: Austin's Ammonia  
Revision Date: 5/26/2015  
Version: 1  
SDS Number: 69  
Common Name: Ammonium Hydroxide  
CAS Number: 1336-21-6  
Product Code: 54200-00047, 54200-00046, 54200-00049, 54200-00050, 54200-00051, 54200-00052, 54200-00056  
RCRA Number: N/A  
Synonyms: Ammonia, Aqua Ammonia, Aqueous Ammonia, Ammonia Water  
Internal ID: 90000475, 90000485, 90000491, 90000500, 90000510, 90000521, 90000560

Emergency phone number: CHEMTREC  
US: 1-800-424-9300 Canada: 1-800-567-7455

Poison Control Center: 1-800-222-1222

### 2 HAZARDS IDENTIFICATION

GHS Signal Word:  
WARNING

GHS Hazard Pictograms:



GHS Classifications:  
Health, Skin corrosion/irritation, 3  
Health, Serious Eye Damage/Eye Irritation, 2 B  
Health, Specific target organ toxicity - Single exposure, 3  
Environmental, Hazards to the aquatic environment - Acute, 3

GHS Phrases:  
H316 - Causes mild skin irritation  
H320 - Causes eye irritation  
H335 - May cause respiratory irritation  
H402 - Harmful to aquatic life



Austin's Ammonia

SDS Number: 69

Revision Date: 5/26/2015

Page 2 of 6

GHS Precautionary Statements:

- P264 - Wash exposed skin thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P281 - Use personal protective equipment as required.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P311 - Call a POISON CENTER or doctor/physician.
- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing. Seek immediate medical attention.

- P309+311 - IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
- P341 - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P370+378 - In case of fire: Use dry chemical, carbon dioxide, foam, or water spray for extinction.
- P401 - Store upright in a cool, dry place.
- P501 - Dispose of contents/container in accordance with all applicable federal, state, and local regulations.
- P410+412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

**3** COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
1336-21-6	0.50-2.50%	Ammonium hydroxide
7732-18-5	97.50-99.50%	Water

**4** FIRST AID MEASURES

- Inhalation:** Mild inhalation of ammonia vapors may cause irritation of the nose and throat. Coughing and sneezing may present. Exposure to more excessive ammonia vapors may cause respiratory irritation, olfactory fatigue, labored breathing, and possible pulmonary edema. For more severe exposure, seek medical attention.
- Skin Contact:** Remove contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. If irritation develops, seek medical attention. Wash clothes before reuse.
- Eye Contact:** Rinse immediately with plenty of cool water. Keep eye(s) wide open while rinsing. Remove contact lenses if present. Avoid rubbing the affected area. Speed is essential to minimize injury. Seek immediate medical attention.
- Ingestion:** Do NOT induce vomiting. Rinse mouth thoroughly with water. If able, have person sip a glassful of water. Follow with a citrus juice if available. Call a physician or poison control center.

## Austin's Ammonia

SDS Number: 69

Revision Date: 5/26/2015

Page 3 of 6

### 5 FIRE FIGHTING MEASURES

Flammability: Liquid state not flammable  
Flash Point: No information available  
Flash Point Method: Not applicable  
Burning Rate: No information available  
Autoignition Temp: No information available

In the event of a fire, wear full protective clothing and MSHA/NIOSH self-contained breathing apparatus with a full facepiece operated in the pressure-demand or other positive pressure mode.

Ammonia gas will be liberated at all temperatures, which can be explosive under confined space conditions. Contact between this product and concentrated mineral acids will cause instant boiling and possible explosion.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment; Water spray may be used to keep fire exposed containers cool. Water spray or fog should be used to remove generated ammonia gas from the atmosphere. Fire extinguishing agents include dry chemical, carbon dioxide, foam, or water spray.

### 6 ACCIDENTAL RELEASE MEASURES

Use personal protective equipment as required/recommended. Evacuate public to a safe area. Stay upwind of spill. Avoid contact with skin, eyes, and clothing.

Prevent spills from entering sewers or waterways. Contain run-off using diking composed of a suitable material. Soak up liquid on inert absorbant and transfer to an approved container. Clean contaminated surface thoroughly.

### 7 HANDLING AND STORAGE

Handling Precautions: Use personal protective equipment as required/recommended. Use only with adequate ventilation. Avoid contact with skin, eyes, and clothing. Use suitable respiratory equipment in case of inadequate ventilation.

Handle empty containers as if they were full due to presence of residual ammonia vapors.  
Do not mix with other household chemicals.

Storage Requirements: Store using properly labeled containers in a cool, dry, well ventilated area. Keep out of reach of children. Separate from incompatible materials and excessive heat.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation, especially in confined spaces. Provide local exhaust ventilation system to meet established exposure limits where ammonia vapors are likely to approach or exceed exposure limits.

Personal Protective Equip: Chemical splash goggles; Face shield; Neoprene gloves; NIOSH approved respirator; Apron;



Austin's Ammonia

SDS Number: 69

Revision Date: 5/26/2015

Page 4 of 6

**9** PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear; colorless, yellow or purple	Odor:	Pungent ammonia, lemon or lavender arom.
Physical State:	Liquid	Solubility:	Completely soluble
Spec Grav./Density:	0.994 - 0.996	Freezing/Melting Pt.:	32 F (approx.)
Boiling Point:	212 F (approx.)	UFL/LFL:	25% / 16%
pH:	10.50 - 12.00		

**10** STABILITY AND REACTIVITY

Stability:	The product is stable and non-reactive under normal conditions of use, pressure, storage and transport.
Conditions to Avoid:	Contact with incompatible materials.
Materials to Avoid:	Chlorine, hypochlorite, acids, alkalies, oxidizing materials, copper, aluminum, zinc, galvanized metals.
Hazardous Decomposition:	Ammonia gas and oxides of nitrogen.
Hazardous Polymerization:	Will not occur.

**11** TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral (LD 50): No information available.

Inhalation (LC 50): No information available.

Skin Irritation: Repeated, prolonged or occluded contact may cause various severities of skin irritation.

Eye Irritation: My cause eye irritation with severe pain, closure of eyelids, and possible corneal injury.

Sensitation: Ammonia vapors may cause upper respiratory irritation resulting in coughing and sneezing, olfactory fatigue, labored breathing, and pulmonary adema.

Chronic Toxicity: None known.

**12** ECOLOGICAL INFORMATION

Considered biodegradable

BOD/COD Value is not established

Ecotoxicity: This product is acutely toxic to aquatic life.



Austin's Ammonia

SDS Number: 69

Revision Date: 5/26/2015

Page 5 of 6

**13** DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regional, national, and local laws and regulations.  
Small amounts of unused product may be flushed safely to sanitary sewer with plenty of water. Contact the local water board before flushing large amounts.  
If solidified, large amounts may be disposed of in a sanitary landfill.  
Contact state or local authorities for additional restrictions.

**14** TRANSPORT INFORMATION

DOT: Not regulated. Classified as non-hazardous.

**15** REGULATORY INFORMATION

\*Ammonium hydroxide (1336216 0.50-2.50%) CERCLA, CSWHS, MASS, NJEHS, PA, TSCA

\*Water (7732185 97.50-98.00%) TSCA

REGULATORY KEY DESCRIPTIONS

-----  
TSCA = Toxic Substances Control Act

MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
NRC = Nationally Recognized Carcinogens  
OSHAWAC = OSHA workplace Air Contaminants  
PA = PA Right-To-Know List of Hazardous Substances  
SARA313 = SARA 313 Title III Toxic Chemicals  
TXAIR = TX Air Contaminants with Health Effects Screening Level

HAP = Hazardous Air Pollutants

CERCLA = Superfund clean up substance  
CSWHS = Clean water Act Hazardous substances  
NJEHS = NJ Extraordinarily Hazardous Substances



# Safety Data Sheet

James Austin Company

Austin's Ammonia

SDS Number: 69

Revision Date: 5/26/2015

Page 6 of 6

16

## OTHER INFORMATION

Author: James Austin Company

Publication Date: 11/25/2014

Revision Note: N/A

Disclaimer: James Austin Company provides this information without warranty. The information is believed to be accurate, but James Austin Company makes no representations as to its accuracy. The information should be used to make an independent determination and therefore, users are responsible to verify this data under their own operating conditions and methods. This information relates only to the product designated herein, and does not relate to its use in combination with other materials or processes.

Material Safety Data Sheet: **Simple Green® All-Purpose Cleaner**

**Simple Green® Scrubbing Pad**

Version No. 1300508B

Date of Issue: November 2008

ANSI-Z400.1-2003 Format

## Section 1: PRODUCT & COMPANY IDENTIFICATION

Product Name: Simple Green® All-Purpose Cleaner  
Simple Green® Scrubbing Pad  
Additional Name: Simple Green® Concentrated Cleaner/Degreaser/Deodorizer

Manufacturer's Product Code Numbers: \*Please refer to page 4

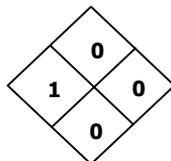
Company: Sunshine Makers, Inc.  
15922 Pacific Coast Highway  
Huntington Harbour, CA 92649 USA  
Telephone: 800-228-0709 • 562-795-6000 Fax: 562-592-3830  
Emergency Phone: Chem-Tel 24-Hour Emergency Service: 800-255-3924

Use of Product: An all purpose cleaner and degreaser used diluted in water for direct, spray and dip tank procedures. Scrubbing pad is used with water for manual scrubbing applications. Both are for cleaning water-safe surfaces.

## Section 2: HAZARDS IDENTIFICATION

**Emergency Overview: CAUTION. Mild eye irritant.**

**Simple Green® is a dark green liquid with a sassafras odor. Scrubbing Pad is a green fibrous rectangle.**



HMIS Rating:

Health = 1 = slight

Fire = 0

Reactivity, and Special = 0 = minimal

**Eye Contact:** Mild Eye Irritant.

**Skin Contact:** No adverse effects expected under typical use conditions. Prolonged exposure may cause dryness. Under this condition, use of gloves or skin moisturizer after washing may be indicated.

**Ingestion:** May cause stomach or intestinal upset if swallowed (due to deterative properties.)

**Inhalation:** No adverse effects expected under typical use conditions. Adequate ventilation should be present when using Simple Green® over a prolonged period of time. Open windows or ventilate via fan or other air-moving equipment if necessary.

**Carcinogens:** No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

**Medical Conditions:** No medical conditions are known to be aggravated by exposure to Simple Green®. Dermal-sensitive users may experience mild but reversible reactions.

**UN Number:** Not Required

**Dangerous Goods Class:** Non-hazardous

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

The only ingredient of Simple Green® with established exposure limits is undiluted 2-butoxyethanol (<4%) (Butyl Cellosolve; CAS No. 111-76-2) [1% for Scrubbing Pad]: the ACGIH TLV-TWA is 20 ppm (97 mg/m<sup>3</sup>). Based upon chemical analysis, Simple Green® contains no known EPA priority pollutants, heavy metals or chemicals listed under RCRA, CERCLA, or CWA. Analysis by TCLP (Toxicity Characteristic Leaching Procedure) according to RCRA revealed no toxic organic or inorganic constituents.

All components of Simple Green® are listed on the TSCA Chemical Substance Inventory. This product does not contain any ingredients covered by the provisions of 29 CFR 1910.1200.

**Section 4: FIRST AID MEASURES**

**Eye Contact:** Reddening may develop. Immediately rinse the eye with large quantities of cool water; continue 10-15 minutes or until the material has been removed; be sure to remove contact lenses, if present, and to lift upper and lower lids during rinsing. Get medical attention if irritation persists.

**Skin Contact:** Minimal effects, if any; rinse skin with water, rinse shoes and launder clothing before reuse. Reversible reddening may occur in some dermal-sensitive users; thoroughly rinse area and get medical attention if reaction persists.

**Swallowing:** Essentially non-toxic. Give several glasses of water to dilute; do not induce vomiting. If stomach upset occurs, consult physician.

**Inhalation:** Non-toxic. Exposure to concentrate may cause mild irritation of nasal passages or throat; remove to fresh air. Get medical attention if irritation persists.

**Section 5: FIRE FIGHTING MEASURES**

**Simple Green® is stable, not flammable, and will not burn. No special procedures required.**

**Flash Point/Auto-Ignition:** Not flammable. **Extinguishing Media:** Not flammable/non-explosive.  
**Flammability Limits:** Not flammable. **Special Fire Fighting Procedures:** None required.

**Section 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Avoid contact with eyes. Do not rub eyes with hands during cleanup. No special precautions for dermal contact are needed. Wash hands thoroughly after cleaning up spill or leak.

**Method for cleaning up:** Recover usable material by convenient method, residual may be removed by wipe or wet mop. If necessary, unrecoverable material may be washed to drain with large quantities of water.

**Section 7: HANDLING AND STORAGE**

No Special precautions are required. **This product is non-hazardous for storage and transport according to the U.S. Department of Transportation Regulations.** Simple Green® requires no special labeling or placarding to meet U.S. Department of Transportation requirements.

**UN Number:** Not Required **Dangerous Goods Class:** Non-hazardous

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

**Exposure Limits:** The Simple Green® formulation presents no health hazards to the user when used according to label directions for its intended purposes. Mild skin and eye irritation is possible (please see Eye contact and Skin contact in section IV.) No special precautionary measures required under normal use conditions.

**Ventilation:** No special ventilation, precautions or respiratory protection is required during normal use. Large-scale use indoors should provide an increased rate of air exchange.

**Human Health Effects or Risks From Exposure:** Adverse effects on human health are not expected from Simple Green®, based on 20 years of use of Simple Green® without reported adverse health incidence in diverse population groups, including extensive use by inmates of U.S. Federal prisons in cleaning operations.

**Eye protection:** Simple Green® is a mild eye irritant; mucous membranes may become irritated by concentrate. Eye protection not generally required. Wash hands after using wipes.

**Skin protection:** Simple Green® is not likely to irritate the skin in the majority of users. Repeated daily application to the skin without rinsing, or continuous contact on the skin may lead to temporary, but reversible, irritation. Rinse completely from skin after contact.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION – continued –**

General hygiene conditions: There are no known hazards associated with this material when used as recommended. The following general hygiene considerations are recognized as common good industrial hygiene practices:

- Avoid breathing vapor or mist.
- Avoid contact with eyes.
- Wash thoroughly after handling and before eating, drinking, or smoking.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance &amp; Odor:</b> Cleaner is a dark green liquid, pad is a fibrous green matrix; both exhibit a sassafras odor.			
<b>Specific Gravity:</b>	1.010 ± 0.010	<b>Vapor Pressure:</b>	18 mm Hg @ 20°C; 23.5 mmHg @ 26°C
<b>Evaporation:</b>	>1 (butyl acetate = 1)	<b>Vapor Density:</b>	1.3 (air = 1)
<b>Water Solubility:</b>	100%	<b>Density:</b>	8.5 lbs/gallon
<b>Boiling Point:</b>	100.6°C (212°F)	<b>pH:</b>	9.5 ± 0.3
<b>Ash Content:</b>	At 600°F: 1.86% by weight	<b>Nutrient Content:</b>	
<b>Freezing Point:</b>	Approx -9 °C (16 °F) <i>If product freezes, it will reconstitute without loss of efficacy when brought back to room temperature and agitated.</i>	Phosphorus: 0.3% by formula Nitrogen <1.0% by weight (fusion and qualitative test for ammonia) Sulfur: 0.6% by weight (barium chloride precipitation method)	
<b>VOC Composite Partial Pressure:</b> 0.006 mmHg @ 20°C			
<b>Volatile Organic Compounds (VOCs):</b> Cleaner meets CARB & BAAQMD regulations. Cleaner must be diluted 1:1 with water to Meet SCAQMD Rule 1171 & Rule 1122 VOC requirements for solvent cleaning operations. [Scrubber VOCs = 3.3% prior to dilution w/water]			
CARB Method 310	3.8%		
SCAQMD Method 313	2.8%		

**Section 10: STABILITY AND REACTIVITY**

Stability: Stable  
 Materials to Avoid: None known  
 Hazardous Decomposition Products: None expected

**Section 11: TOXICOLOGICAL INFORMATION**

Toxicology information is based on chemical profile of ingredients and extrapolation of data from similar formulas.

Acute Toxicity: Oral LD<sub>50</sub> (rat) >5 g/kg body weight\* \*Calculation from OECD series on testing and assessment number 33, Chapter 3.2  
 Dermal LD<sub>50</sub> (rabbit) >2 g/kg body weight

Eye Irritation: Moderate/Mild reversible eye irritation may occur based on relevant laboratory studies. This potential is reduced by immediate rinsing of eyes in case of eye contact.

Dermal Irritation: Mild, reversible skin irritation may occur based on relevant laboratory studies. A 6-hour exposure to human skin under a patch did not produce irritation

Repeat Exposure Via Skin Contact: Based on relevant laboratory studies, no toxic effects are expected to be associated with daily skin exposures (with up to 2 g/kg/day tested for 13 weeks on rabbits). Skin irritation may, however, occur with repeated or prolonged exposures.

Reproductive Effects Assessment: Based on relevant laboratory studies (CD-1 mouse 18-week fertility assessment continuous breeding), no adverse effects on reproduction, fertility, or health of offspring are expected.

**Section 12: ECOLOGICAL INFORMATION**

**Hazard to wild animals & aquatic organisms:** Low, based on toxicological profile.

**Biodegradability:** Readily biodegradable based on biodegradation profile, PRO/FT CBT-AC 014-7 “Ready Biodegradability: Closed Bottle Test” OECD, and OECD 302B laboratory tests

**Environmental Toxicity Information:** It is important not to allow the runoff from cleaning into closed systems such as decorative ponds. Always protect closed systems with tarps or dikes if necessary.

**Section 13: DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all applicable local, state and federal laws. Dispose of used or unused product, and empty containers in accordance with the local, State, Provincial, and Federal regulations for your location. Never dispose of used degreasing rinsates into lakes, streams, and open bodies of water or storm drains.

**Section 14: TRANSPORT INFORMATION**

This product is non-hazardous for transport according to the U.S. Department of Transportation Services

UN Number: Not required

Dangerous Goods Class: Non-hazardous

**Section 15: REGULATORY INFORMATION**

\*Reportable components:

All components are listed on: EINECS and TSCA Inventory

No components listed under: Clean Air Act Section 112

SARA: This material contains 2-Butoxyethanol, < 4%, (CAS# 111-76-2) which is subject to the reporting requirements of Section 313 of SARA Title III and 49 CFR Part 373.

RCRA Status: Not a hazardous waste.

CERCLA Status:

No components listed

TSCA TRI Reporting: Not required / Not listed

CA PROP. 65 Status:

No components listed

**Section 16: OTHER INFORMATION**

Questions about the information found on this MSDS should be directed to:  
 SUNSHINE MAKERS, INC. – TECHNICAL DEPARTMENT  
 15922 Pacific Coast Hwy. Huntington Harbour, CA 92649

Phone: 800/228-0709 [8am-5pm Pacific time, Mon-Fri]

Fax: 562/592-3830

Email:

infoweb@simplegreen.com

CAGE CODE 1Z575

GSA/FSS - CONTRACT NO. GS-07F-0065J

National Stock Numbers & Industrial Part Numbers:

Simple Green	Part Number	NSN	Size
	13012	7930-01-342-5315	24 oz spray (12/case)
	13005	7930-01-306-8369	1 Gallon (6/case)
	13006	7930-01-342-5316	5 Gallon
	13016	7930-01-342-5317	15 Gallon
	13008	7930-01-342-4145	55 Gallon
Scrubbing Pad	Part Number	NSN	Size
	10224	7930-01-346-9148	Each (24/case)

Retail Numbers:

Part Number	Size
13002	16 oz Trigger (12/case)
13005	1 Gallon (6/case)
13013	24 oz Trigger (12/case)
13014	67 oz / 2 L (6/case)
13033	32 oz Trigger (12/case)

\* part number is for both industrial and retail

\*\*International Part Numbers May Differ.

**DISCLAIMER:** The information provided with this MSDS is furnished in good faith and without warranty of any kind. Personnel handling this material must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of this material and the safety and health of employees and customers. Sunshine Makers, Inc. assumes no additional liability or responsibility resulting from the use of, or reliance on this information.