



GS-34

Green Bison

heavy duty cleaner & degreaser

MADE IN USA

สินค้า "ฉลากเขียว" จากประเทศสหรัฐอเมริกา

This method is based on ASTM G-122, (1996)

MIL-PRF-87937C (DOD, 1997)

MIL-C-29602(DOD, 1995).



All **Green Bison** Products, are safe for use around children, food products, pets and plants. Only Bio-Degradable Chemicals are used and have no special safety requirements. They are rated Non-Toxic and Non-Hazardous by the following Agencies.

- Environmental Protection Agency
- Occupational Safety and Health Administration
- U.S. Department of Transportation
- State of Arizona
- State of California
- State of New Jersey

GS-34 This test method is a procedure for evaluating the ability of a degreaser to remove soil. This method is based on ASTM G-122, (1996), MIL-PRF-87937C (DOD, 1997) and MIL-C-29602 (DOD, 1995). It is intended to provide information about the relative cleaning ability of a degreaser. Because cleaning effectiveness depends on a variety of cleaning conditions (e.g., temperature, agitation, and rinse conditions), as well as on the characteristics of parts (e.g., size and shape), the final evaluation of a cleaning agent should include testing under actual cleaning conditions.

This procedure can be used to test aqueous-, semiaqueous-, and solvent-based degreasers. A minimum of four tests must be completed for each degreaser/soil combination. For the two soil types recommended in this method, eight 304 stainless coupons are used to test each degreaser. This method does not address compatibility of degreasers with various surfaces. It is the responsibility of the manufacturer of the degreaser to provide the user with this type of information. In addition, this method does not address all safety issues. The testing laboratory is responsible for establishing the appropriate health and safety practices as well as the applicability of regulatory limitations.

Note that certain precautions may be required when working with low flash point degreasers. For example, an inert-gas blanket may be required, or heating and agitation may not be possible. The tester must consult the manufacturer's operating and safety instructions concerning specific precautions before conducting this test.



MIL-PRF-87937C DOD1997
MIL-C-29602 DOD1995

EPA

OSHA

STC 300 Degreaser

Green Bison



heavy duty cleaner & degreaser

**What is Green Bison heavy duty degreaser?**

Green Bison is a superb multi purpose degreaser engineered to efficiently remove dirt and break down oil and grease without damaging equipment and facilities. The product has a highly sustainable water based design. It contains no petroleum distillates, mineral acids or butyl compounds- all components are either directly sourced from nature or biobased.

Green Bison offers the following features and benefits:

Excellent Performance-With Green Bison you do not have to trade efficiency for safety
Cost Effective-Green Bison is concentrated, allowing you to dilute with water and use only the amount you need.
Regulatory Compliance- Green Bison meets current environmental regulations
Reduced Risk Management Exposure-Advanced safety attributes reduce injury, regulatory and pollution risks.

How is Green Bison different from other degreasers?

Unlike traditional solvent, high-alkaline and caustic chemistries, Green Bison uses natural and bio based ingredients and delivers effective cleaning, improved worker safety and advanced environmental compliance.

What does Green Bison clean?

Green Bison is powerful product designed to remove dirt and grime, various organic oils and greases, even carbon black stains and residue.

What are common cleaning/degreasing applications where Green Bison is used?**Applications for Green Bison**

are almost limitless, here are some:

- Cleaning and degreasing of sewer lines and grease traps
- Cleaning and degreasing of mining and milling equipment and machinery
- Cleaning and degreasing of food preparation environments
- General cleaning / Wipe down
- Hard surface cleaning / concrete cleaning
- Parts Washing
- Soak, Dip, Immersion Tanks
- Pressure Washing / Jetting
- Automated Floor Scrubbing

What is recommended dwell time?

For spray on applications we recommend applying the product and allowing 5-10 seconds for the product to emulsify the soil. In general the longer the product interacts with soil/grease- less agitation will be required. For soaking applications recommended time is 10-30 minutes. Some soils and encrusted deposits may require longer times.

What are recommended temperatures?

Green Bison is water based, and it will evaporate like water. Increased temperatures will increase rate of evaporation.

We recommend using Green Bison at the following temperatures

General cleaning and degreasing - Ambient temperature
Pressure washing - 105 to 110

Fahrenheit Soak/Dip Tanks - 105 to 160 Fahrenheit





What are concentrations?

Below are some basic concentration suggestions. We encourage you to try several solutions to find the most

appropriate concentration for your specific cleaning needs.

Heavy duty / Moderate grease - dilute 4 to 20 parts water to 1 part Green Bison Everyday cleaning - dilute 30 parts water to 1 part Green Bison High pressure cleaning - dilute up to 200 parts water to 1 part Green Bison For breaking solid grease use concentrate.

What are storage requirements and what is shelf life?

Green Bison is water based degreaser and will freeze like water. We recommend that the product is protected from extreme high and low temperatures. Do not store in direct sunlight. If the product freezes - allow to thaw completely and mix thoroughly. Green Bison has a shelf life of 3 years from date of manufacture.

Industrial Cleaners

GBS-3000-MCH-S



Designed to break down the most extreme grease and tar GBS-3000-MCH-S is Non Toxic and Environmentally Preferable. It cuts through tar, asphalt residue and heavy grease. It is also great for cleaning diesel and locomotive engine heads, gear housings and 100's of other tough cleaning jobs. This product has no petroleum distillates, mineral acids or butyl compounds. Great for vertical and overhead applications.

STC 113 Degreaser



Similar to our STC 300 formula but with a thinner viscosity making it great for Dip Tank applications. Great as a spray on engine cleaner

Injection Mold Cleaner



Excellent Non Toxic Environmentally Preferable and Biodegradable cleaner for the plastics industry. Cleans grease and residue from non ferrous metal components without abrasion or surface etching. Great in Hydrosonic Tanks and as a spray on surface cleaner

Green Bison heavy duty degreaser



Green Seal certified, safer multi purpose cleaner, powerful and versatile. Recommended for: Municipal and Water Treatment Services Mining and Milling Industries Food Preparation Environments Automotive Services

Cell Cleaner

Highly effective Spectrophotometer Cell cleaner. Great for removing hard water deposits and residues from flow meter cells without wiping or scrubbing



Commercial Cleaners

Carpet Cleaner

Safer, Non toxic and concentrated. Great as a spot cleaner and as a steam cleaner additive

Concrete Cleaner

Removes stubborn stains from concrete walks and driveways

Pool Deck Cleaner

Removes grease, droppings, oil and lotion stains, hard water scale, rust spots and other stains.

Pool Tile Cleaner

Removes hard water scales without effecting the chemical balance of the pool water

Beverage Line Cleaner

Concentrated Non Toxic cleaner used to remove yeast and syrup build up from beverage dispenser systems Tar and Asphalt Remover Great for removing tar, asphalt and chip sealer from surfaces without damaging paint

Glass Cleaner

Safe and highly effective for removing hard water deposits and

Heavy Duty Brass Cleaner

Used to restore heavily oxidized brass surfaces

Metal Surface Cleaner

Great for everyday cleaning of Stainless steel, brass, copper and chrome. Details»

Wheel Magic

Spray on and rinse off wheel cleaner. Details»

Household Cleaners

Carpet Cleaner

Safe, Non toxic and concentrated. Great as a spot cleaner and as a steam cleaner additive

Toilet Bowl Cleaner

Removes rust stains and mineral deposits. Non fuming and minimal odor

Oven Cleaner

Spray on and wipe off with minimal odor and no fumes

Window Cleaner

Highly effective glass and surface cleaner, great on any surface that will not be harmed by water



Commercial Laundry Booster

Added to commercial laundry detergent to lower the cleaning cycle temperature reducing costs and cleaning fabrics more efficiently. Details»



Shower Cleaner

Eliminates mold, soap buildup and body oils from ceramic tiles, fiberglass and metal showers and bathtubs



Household Degreaser

Safely removes all types of typical household grease



Metal Surface Cleaner

Great for everyday cleaning of Stainless steel, brass, copper and chrome

Concrete Cleaner

Removes stubborn stains from concrete walks and driveways

Pool Deck Cleaner

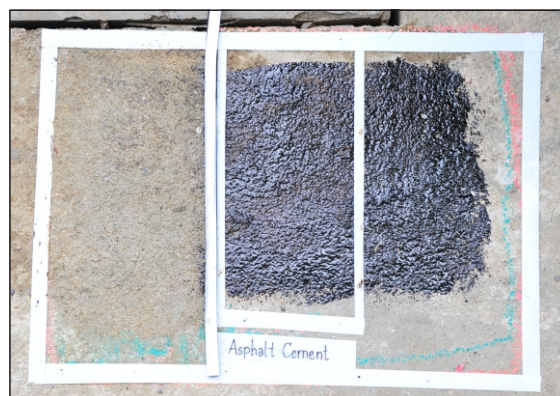
Removes grease, droppings, oil and lotion stains, hard water scale, rust spots and other stains

Pool Tile Cleaner

Removes hard water scales without effecting the chemical balance of the pool water

Wheel Magic

Spray on and rinse off wheel cleaner





Flammability and Ignitability.

The concentrated product shall not be ignitable (i.e., the flashpoint for the compound is above 140° F). In addition, the flash point of the final concentration of the degreasing product shall not be less than 40° F above the manufacturer's recommended usage temperature. The flash point of the degreasing agent shall be determined using either ASTM International (ASTM) Cleveland Open Cup Tester (ASTM D92-97), or a Tag Closed Tester (ASTM D56-97)

Test Method for Evaluating the Cleaning Effectiveness of Degreasing Agents

This test method is a procedure for evaluating the ability of a degreaser to remove soil. This method is based on ASTM G-122, (1996), MIL-PRF-87937C (DOD, 1997) and MIL-C-29602 (DOD, 1995). It is intended to provide information about the relative cleaning ability of a degreaser. Because cleaning effectiveness depends on a variety of cleaning conditions (e.g., temperature, agitation, and rinse conditions), as well as on the characteristics of parts (e.g., size and shape), the final evaluation of a cleaning agent should include testing under actual cleaning conditions.

For purposes of this standard, naturally occurring elements and chlorinated organics that may be present as a result of chlorination of the water supply and that are listed as carcinogens or reproductive toxins may be present as impurities if the concentrations are below the applicable maximum contaminant levels in the National Primary Drinking Water Standards found in 40 Code of Federal Regulations (CFR) Part 141

Photochemical Smog and Oxidant Production The compound shall not contain substances that can contribute significantly to the production of photochemical smog and tropospheric ozone. Therefore, the volatile organic content of the product, as used, shall not exceed 50 g/L, as determined by EPA method 24 (40 CFR Part 60).

Ozone Depletion The product shall not contain any ozone-depleting substances.

Toxicity to Aquatic Life The product shall not be toxic to aquatic life.

A compound is considered not toxic to aquatic life if it meets one of the following criteria:

Acute LC50 daphnia or fish	≥ 100 mg/L
Acute LC50 algae	≥ 100 mg/L

Corrosivity and Causticity The pH of the degreasing agent concentrate shall be less than 11.0 but greater than 2.5. The pH is measured using a pH meter and Method 9040 in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, U.S. Environmental Protection Agency (EPA) Publication, SW-846

Photochemical Smog and Oxidant Production The compound shall not contain substances that can contribute significantly to the production of photochemical smog and tropospheric ozone. Therefore, the volatile organic content of the product, as used, shall not exceed 50 g/L, as determined by EPA method 24 (40 CFR Part 60)

Skin and Eye Irritation The degreasing product concentrate shall not be a skin or eye irritant. A product is considered a skin irritant if it has a mean score of 2 or more for either erythema and eschar formation or edema formation, based on the OECD dermal scoring system (OECD, TG 404). A product is classified as an eye irritant if it causes significant ocular lesions in any type of ocular tissue (i.e., cornea, iris, or conjunctivae) within 72 hours after exposure that persist for at least 24 hours. The product concentrate shall meet all of the following criteria (OECD, 1993):

- Mean score for cornea opacity of less than 2
- Mean score for iris lesions of less than 1
- Mean score for redness of the conjunctivae of less than 2.5
- Mean score for edema of the conjunctivae (chemosis) of less than 2

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Green Seal

เป็นองค์กรอิสระที่ไม่ได้มุ่งหวังผลกำไร ก่อตั้งขึ้นเมื่อปี ๑๙๘๘ ในประเทศสหรัฐอเมริกา โดยการรับรองจากนานาชาติ เพื่อกำหนดมาตรฐานในด้านสิ่งแวดล้อม โดยการชี้ชัดและจัดความสับสนของใจว่าผลิตภัณฑ์ใดเป็นผลิตภัณฑ์ที่ดีต่อสุขภาพและเป็นมิตรกับสิ่งแวดล้อม มีคุณสมบัติตามเกณฑ์มาตรฐานและผลดีกับสิ่งแวดล้อมที่เป็นพิษเป็นอันตรายเป็นภัยต่อภาวะสิ่งแวดล้อมโดยการวิเคราะห์ด้วยวิธีตามหลักการทางวิทยาศาสตร์ตลอดจนการอนุญาตให้ใช้ตราเครื่องหมาย เพื่อรับรองสินค้าบริการและประสิทธิภาพเพื่อคุณภาพสิ่งแวดล้อมที่ตรงตามมาตรฐานสูงสุด

Green Seal is a non-profit organization whose mission is to use science-based programs to empower consumers, purchasers, and companies to create a more sustainable world. Green Seal sets leadership standards that aim to reduce, to the extent technologically and economically feasible, the environmental, health, and social impacts throughout the life-cycle of products, services, and companies. The standards may be used for conformity assessment, purchaser specifications, and public education.

U.S. Environmental Protection Agency เป็นหน่วยงานของรัฐบาลกลางของสหรัฐอเมริกา ในปี ๑๙๗๐ หน้าที่ในการดูแลรักษาและปกป้องสิ่งแวดล้อมตลอดจนถึงสุขภาพอนามัยของประชากร โดยทำหน้าที่ในการกำกับดูแลออกกฎระเบียบข้อบังคับรวมถึงการสนับสนุนส่งเสริมและพัฒนากิจกรรมที่เกี่ยวข้องกับสิ่งแวดล้อมอย่างกว้างขวางและให้ความร่วมมือกับนานาชาติประเทศในการดูแลและแก้ไขปัญหาเกี่ยวกับสุขอนามัยและสิ่งแวดล้อม



Occupational Safety and Health Administration เป็นสำนักงานของรัฐบาลสหรัฐอเมริกาที่มีหน้าที่ดูแลเกี่ยวกับสุขภาพและอนามัยและความปลอดภัยของผู้ประกอบอาชีพ ซึ่งรวมถึงการป้องกันอันตรายและส่งเสริมสุขภาพอนามัยเยื้องไว้ซึ่งสภาพร่างกายและจิตใจที่สมบูรณ์ตลอดจนสถานะความเป็ นอยู่ที่ดีของผู้ประกอบอาชีพทั้งมวล

Material safety data sheet หรือย่อว่า MSDS

รายละเอียดของสารเคมีอันตราย ตามกฎหมายความปลอดภัยในการทำงาน MSDS จะมีลักษณะคล้าย 'ฉลาก' ติดไว้ที่หีบห่อภาชนะบรรจุหรือวัสดุห่อหุ้มสารเคมีอันตราย ซึ่งจะบอกให้รู้ถึงอันตรายของสิ่งที่อยู่ในภาชนะบรรจุ วยป้ายสัญลักษณ์ที่แสดงอันตราย โดยมีการแสดงรายละเอียดดังนี้

ชื่อทางเคมี หรือ ชื่อทางวิทยาศาสตร์

๑. CAS No. หรือ UN/ID No.
๒. รายละเอียดผู้ผลิต ผู้นำเข้า
๓. การใช้อย่างปลอดภัย
๔. มาตรฐานความปลอดภัย
๕. คุณสมบัติทางกายภาพและเคมี
๖. อันตรายต่อสุขภาพ
๗. ความคงตัวและการเกิดปฏิกิริยา
๘. อัคคีภัย/ระเบิด
๙. การเก็บรักษา/ขนส่ง
๑๐. การกำจัดกรณีรั่วไหล

อุปกรณ์ป้องกันอันตรายส่วนบุคคล

๑๑. การปฐมพยาบาล
 ๑๒. ผลกระทบต่อสิ่งแวดล้อม
 ๑๓. การปฏิบัติเมื่อเกิดเหตุฉุกเฉิน
- เพื่อให้ผู้ปฏิบัติงานทำงานกับสารเคมีอันตรายนั้นๆ ได้อย่างถูกวิธี และปลอดภัย ย่อม ก็ทั้งสามารถรับมือกับเหตุฉุกเฉินได้ อันอาจเกิดจากสารเคมีอันตรายนั้นๆ

MSDS