Easiwash Cleaning Systems Manual

- INITIAL START-UP
- OPERATOR'S MANUAL

V1.0

For Model
EZ5200
EZ2130

EZ 5200 Spec: 5 HP, 240 Volts, 30 Amp, 60 Hz, 1 Phase, 2,000 psi, 140 degree
EZ 2130 Spec: 2 HP, 120 Volts, 20 Amp, 60 Hz, 1 Phase, 1,300 psi, 140 degree

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1109 10th Ave North, Clear Lake, IA 50428
641-357-9274 – Office info@easiwash.com www.easiwash.com

Quick Reference Guide

QR CODE TO ACCESS TRAINING / TROUBLESHOOTING VIDEOS ON OUR WEBSITE, **WWW.EASIWASH.COM**

Electrical

Motor	5 HP
System Voltage	208 or 240 VAC
System Amp Circuit Size	30 AMP
Motor Running Amp	23.6 / 23 AMP
Phase Size	1
Low Voltage Controls	24 VAC
(Pump, Warm, Soap Switches)	

Water

Inflow Requirement From Building	5.0 GPM
Pro Tip: If you question wether you have enough water supply, disconnect water supply hose from easiwash and see how long it takes to fill up a bucket of a known qty. Ex: 5 gallon should fill up in 60 seconds.	
Pump Output	3.6 GPM
Pump Pressure Max	2,500 PSI
Nozzle Pressure Max	2,000 PSI
Max Water Temp	140 Degree F

Nozzle / Tip Size

Nozzle Size	5
High Pressure Nozzle	15050

**There are dozens of yellow tips sizes.*
Make sure you see this 15050 stamped on it.
They are hard to find at hardware & bigbox stores. We stock them at our warehouse.

Winterizing System

>Open outside ball valves to allow water to gravity drain from the hoses.

>Bring hose cart INSIDE, or have the water blown out with compressed air. The hose will burst if allowed to freeze with water still trapped inside.

If Experiencing Low Pressure

1) Verify your soap switches are OFF on all stations
2) Verify you have correct nozzle in gun (see pic below)
3) Verify the building water supply valves are ON
4) Verify the black reservoir tank behind the pump is full of water when trying to run the unit.

> If you verify #1-3, and #4 does Not have at least 1/2 full of water, the following is likely happening:

> The dual inlet solenoid is malfunctioning
OR > The float valve is malfuntioning
OR > Your building water suppy is not keeping up

Yearly Maintenance

Pump Oil needs changed at least once per year.
> 30 weight non-detergent oil (we stock OEM oil)

Pump Valves checked yearly for calcium buildup

If you are having any problems and the QR Code link is not answering your questions, please do not hesitate to call us for Free technical support at 641-357-9274 or email us at info@easiwash.com

Initial Unit Start-up Procedure

Pages 3-7

Before turning on power make certain the control box is wired for the proper voltage. [Power Unit – Final Install Instructions, page 2 of 4] of the Install Playbook. Measure incoming voltage from the building. If it's 215V or lower the red wire from transformer should be connected to L3 on contactor. If incoming voltage is over 215 V the orange wire from transformer should be connected to L3 instead of the red wire.

Priming the system – (INITIAL START WHEN NEW)

- It is not possible to push water through the system directly from the building's water supply. The water enters the black plastic reservoir tank once the motor and pump are turned on and must be pulled into the

system via the suction side of the high-pressure pump. This is a safety device which eliminates the danger of pulling contaminated water back into the water system in the event of any water system malfunction.

- Ensure the building water supply hot and cold valves are flushed out from construction debris before hooking up to Easiwash. Open both hot and cold water supply valves.

- Energize power to the main unit by having the Master toggle switch in the UP position and the PUMP switch turned on. (See illustration on previous page)

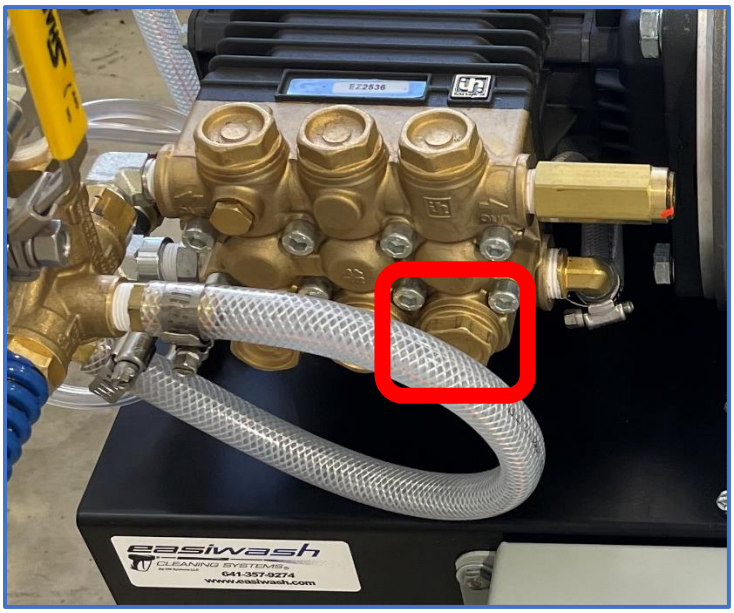
- When the pump switch is turned ON and machine is running, the cold water solenoid will open allowing water to enter the water reservoir tank. Water is now introduced to the system.

- Open one of your remote workstation ball valves without any hoses hooked up. Water should eventually start pumping out of the ball valve and should be shooting out approximately 3 feet from the building.

- If water does not come out within 30-45 seconds, shut the unit off and ensure there is water in the black reservoir tank. Assuming water is in the tank, the pump is having a hard time removing the air to get primed with water.

2 options if unit is not self-priming:

1) Open Ball valve that is at the unit, above the pump. Turn the pump on until water comes out.
2) If option #1 does not prime the pump, use a 1 $^{1/16''}$ wrench or socket to LOOSEN the lower right pump valve cap on the suction side. (pictured below) Turn the unit on until water starts flowing out of the pump valve hole. Shut the unit off to re-install pump valve cap and snug up. This should help prime the pump.



Pump Valve Cap that may need to be removed temporarily to prime the pump with water.

1 1/16" wrench or socket

INITIAL START-UP – New Unit

The remote-control box (pictured above) has (3) separate switches, which control the pump, warm water, and soap circuits. Each switch has a light. When the circuit is energized the red light comes on. **The switch will still operate in the event the light should fail.**

Open the ball valve on the first remote workstation and push the pump switch to start the pump. Check for water flow and let run for a minute or two before shutting power off to unit. Close remote workstation ball valve, open another and repeat until all remote workstations have been tested. Now hook up hose reel, without pressure nozzle, to an outlet and fill with water. Check all system hoses to see if any leaks have occurred during this low-pressure operation and tighten connections as needed. Any leaks found at this time will save a big mess later when high pressure is introduced to the system.

Continue to operate the machine as above but push the Warm water switch. This will add hot water to the cold water stream. The machine should never operate using the hot water alone. **The machine incorporates a high temperature switch that will shut down machine if the water temperature reaches 140 deg F. If this happens it will not restart until the temperature drops to a satisfactory level. This cooling off period may take 30 minutes or more.**

DEPENDING ON WHAT TYPE OF SOAP SOLUTION YOU HAVE, you may now push the Soap switch if you have the 2.5 gal jug of Easiwash soap and the soap hose is inserted into the jug. This will open a solenoid valve that allows soap to be pulled into the water flow. Be sure soap container is full and that soap line is below soap level. If the soap line is allowed to pull air into the system, it will disrupt flow and cause pulsation or loss of pressure.

**If you are using the Envirox Industrial Degreaser you will not be using the soap switch option at all from the Easiwash unit. You may choose to lightly pry ALL soap switch paddles off unit and remote-control boxes to ensure no operators try to activate switch which will guarantee them trouble with low pressure.

Now add the pressure nozzle to the gun wand and operate the machine at full pressure. Operate at each outlet and familiarize yourself with the controls. Pay attention to the sound of to pump and the smoothness or the operation. If the system pulsates or seems to come and go this may indicate that the soap system is pulling air into the system. Notice that the motor and pump relaxes when gun is closed and works harder when gun is open.

When gun is closed water recirculates in a short loop though the pump instead of moving out of the system. This takes the load off the motor but the water in that loop heats up rapidly and when it reaches 140 def F the system will shut down to protect the pump from damage. It will not restart for at least 30 minutes when the water cools.

When satisfied that everything works shut off soap, warm water, and pump switches. Check all areas for leaks and for any signs that hoses are not arranged correctly. Look for any places that hoses may rub sharp corners and rearrange if needed.

At this point the machine should be operable and it is time to train the staff who will operate the machine in its new home.

Operator Training / Instructions

This QR code takes you to Easiwash's SUPPORT page: www.easiwash.com/support/

Once at the Support page, scroll to find support videos.

One popular video is called **EASIWASH:BASIC OPERATION**

This 7-minute video assumes you have never been around an Easiwash system and teaches you how to hook everything up to start pressure-washing.

- The master power toggle switch (shown on initial page above) should be turned on **only when operating machine.** If the Main toggle switch is on, then all remote workstation switches will operate if pushed. If an unattended machine is turned on by accident the possibility of damage to machine or facilities may be the result.

- Soap System: (Only if using 2.5 gal jug with open lid) When any soap switch is activated, soap is pulled into system by vacuum on the suction side of the pump. If there is a leak in the system or if soap level is low, the pump will pull in air instead of soap and pump performance will suffer. (*To show yourself what happens, run the machine with the soap switch activated, and lift the soap hose up until it sucks air. You can hear and feel how this effects the operation.)*

- Operators should not use concrete cleaner or heavy degreaser with a pH of more than 7.5 in the soap system. These products *WILL* damage internal pump components.

- **Explained in the Portable Dispenser and foamer video:** Utilizing Envirox Industrial Degreaser with Easiwash foamer and gun.

- High Temperature Switch / High Temp Light: Prolonged operation with gun closed OR running hot water Only will cause water in the pump to exceed 140 deg F and the temperature switch will shut the machine off for safety reasons. It will not restart until it is cooled which may be 30 minute or longer. *Shut Master toggle OFF and wait to cool.*

- **Explained in the BASIC OPERATION video:** How to operate ball valves and switches at remote workstations and how to operate quick couplers and use them on gun wand and hose connections.

- Explained in the BASIC OPERATION video: Using the correct nozzle.

- **Explained in the HOW TO REPLACE AN O-RING video:** How to replace an O-ring. The o-ring kit contains 4 small o-rings for small quick coupler to tips, and 6 large o-rings for large quick coupler used on hoses.

- In the event a light in remote workstation switches fails, the function will still operate as needed.

- **Explained in the BASIC OPERATION video:** Understand how to operate the locks on ball valves, and how to open/close. Show how to bleed pressure off hose before disconnecting hose.

- Shut off Main Power switch and make sure unit is completely shut down.

- Reminder that high pressure water is dangerous and is damaging to human skin. Demonstrate the damage to wood grain by direct spray and explain that injury or injection is a danger if the power washer is used foolishly.

- Reminder that ball valves at every remote workstation need to be opened to drain before freezing temperatures arrive so there is no damage done to ball valves.

_____I understand Main power toggle switch operation and importance of shutting switch off when unit is not being used.

_____I know where to find the phone number where we can call to get service or cleaning supplies.

_____I understand how the soap system works and the importance of keeping soap level up so system cannot draw air into the system. If applicable, I understand how to use portable dispenser to fill foamer with Envirox Industrial Degreaser.

_____I understand that concrete cleaner or other high pH Degreasers above a pH of 7.5 will damage machine and should never be used in the soap system.

_____I understand that prolonged operation with gun closed will cause water pump to exceed 140 deg F and the temperature switch will shut the machine off. It will not restart until it is cooled which may be 30 minute or longer.

_____I understand how to operate ball valves and switches at the remote workstations.

_____I understand how quick couplers work on the gun wand and hose connections.

_____I understand the differences between different nozzles. I can replace an o-ring in a quick-disconnect if required.

_____I understand that if a light should fail in a black control box, the switch will still operate and turn machine on.

_____ I understand how to operate the lock on a ball valve. I know how to close valve and bleed pressure off hose before disconnecting hose.

_____I understand how to use the hose reel.

_____I understand the dangers that high pressure water can present and that there is adequate power at the nozzle to damage skin or cause injury if operated carelessly.

_____I understand how to safely shut down unit.

_____I understand the need to open the ball valves and let water drain out before freezing temps occur.

Signed by Employee	
Date	
Signed by Management	
Date	

IMPORTANT SAFETY INSTRUCTIONS

WARNING – When using this product, the basic precautions should always be followed, including the following:

1. Read all instructions before using this product.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. Know how to stop the product and bleed pressures quickly. Be thoroughly familiar with the controls.
4. Stay alert – watch what you are doing.
5. Do not operate the product when fatigued or under the influence of drugs.
6. Keep operating area clear of all persons.
7. Do not overreach or stand on unstable support. Always keep good footing and balance.
8. Follow the maintenance instructions specified in this manual.

WARNING – Risk of injection or severe injury – Keep clear of Nozzle. Do not direct discharge stream at persons – This product is to be used only be trained operators.

CAUTION – Gun kicks back – Hold on with both hands.

WARNING – Risk of Explosion – Do not spray flammable fluids.

GROUNDING INSTRUCTIONS - This product must be connected to a grounded, metal, permanent wiring system; or an equipment-grounded conductor must be run with circuit conductors and connected to the equipment grounding terminal lead on the product.

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION – To provide additional protection from the risk of electrical shock, this machine should only be connected to a panel breaker that is protected by a Ground Fault Circuit Interrupter (GFCI)

SAVE THESE INSTRUCTIONS

MSDS: Easiwash Private Label Detergent

EWS, LLC

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PREMIUM LIQUID DETERGENT, # 705

MATERIAL SAFETY DATA SHEET

DATE: 01-20-2018 **PAGE 1**

CHEMICAL NAME: LIQUID CLEANING COMPOUND

SYNONYMS: **CHEMICAL FAMILY: LIQUID DETERGENT**

FORMULA: BUILT DETERGENT **MOLECULAR WEIGHT: N/A**

TRADE NAME AND SYNONYMS: #714 "READY TO USE" SUPER LIQUID DETERGENT CONCENTRATE

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg: 221°F **FREEZING POINT: 28°F**

SPECIFY GRAVITY (H20 equals 1): 1.085 @ 25°C **VAPOR PRESSURE AT 20 DEGREES C: N/A**

VAPOR DENSITY (air equals 1): N/A **SOLUBILITY IN WATER: COMPLETE**

PERCENT VOLATILES BY VOLUM: N/A **EVAPORATION RATE (equals 1): N/A**

APPEARANCE AND ODOR: TRANSPARENT LIQUID WITH MILD DETERGENT ODOR

II. HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS OR GASES	CAS NUMBER	%	TLV (UNITS)
Potassium Silicate	1312-76-1	< 1	PEL=2 mg/M^3 LD.50=1120 mg/kg
Potassium Hydroxide	1310-58-3	< 1	PEL=2 mg/M^3 TLV=2 mg/M^3
Alkyl phenol Ethoxylate	68412-54-4	<3	15 Min. ceiling NIOS None Established
HMIS/NFPA PH=10.0 Health=1 (slight) Flammable=0 (none) Reactivity=1 (slight) Contact=1 (slight)			

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	**Non-flammable**	**AUTOIGNITION TEMP.**		**None**	
FLAMMABLE LIMITS IN AIR, % by volume		**LOWER**	**N/A**	**UPPER**	**N/A**
EXTINGUISHING MEDIA	**None Necessary**				
SPECIAL FIRE FIGHTING PROCEDURES	**None Necessary**				
UNUSUAL FIRE AND EXPLOSION HAZARDS	**None Necessary**				

913-362-0049 During normal working hours, Central Time – Other times contact Chemical-Tel 800-255-3924 or the nearest Poison Control Center.

MATERIAL SAFETY DATA SHEET -

National Purity, LLC , 6840 Shingle Creek Pkwy Ste. 23, Brooklyn Center, MN 55430 For hazard or emergency information call: 1-800-255-3924

SECTION I **PRODUCT IDENTIFICATION -**

Product Name: Ultimate-Free Degreaser

DOT Proper Shipping Name: Corrosive liquid, basic, inorganic, n.o.s. (contains potassium carbonate), 8, UN 3266, PG III

Formula Type: Alkaline liquid degreaser and cleaner.

SECTION II **HAZARD RATING** - 0 = MINIMAL 1 = SLIGHT 2 = MODERATE 3 = SERIOUS 4 = SEVERE

Health: 2 **Reactivity: 0** **Fire: 0** **Special: B**

SECTION III **HAZARDOUS INGREDIENTS -**

Name	C.A.S. No.	%	Exposure Limit
Potassium carbonate	584-08-7	< 10	Not established

The criteria for listing components in this section are: Carcinogens are listed when present at 0.1% or greater, components which are otherwise hazardous according to OSHA are listed when present at 1% or greater. Non hazardous components are not listed. This is not a composition disclosure.

SECTION IV **PHYSICAL DATA**

Appearance/Odor:	Clear liquid/solvent odor	Solubility in Water:	complete	Evaporation Rate (butyl acetate=1):	< 1
Specific Gravity:	1.08	pH: Conc.	12.5-12.6	Vapor Pressure (mm HG):	NA
% Evaporation by Volume:	82	Boiling Point (F°):	aprx 212	Vapor Density (air=1):	> 1

SECTION V **FIRE AND EXPLOSION INFORMATION -**

Flashpoint (F°) (Method Used): > 200° F.

Extinguishing media: __xx__foam __xx__CO_2 __xx__dry chemical __xx__water fog _____other _____not applicable

Special fire fighting procedures: Use procedures proper for the primary source of the fire. Treat as an alkaline material.

Unusual fire and explosion hazard: Containers may melt or rupture from the heat of a fire.

SECTION VI **HEALTH HAZARD DATA -** Primary routes of entry: eyes, skin, ingestion, inhalation

Signs and symptoms : Corrosive to eyes and skin with possible permanent damage. Corrosive to mucous membranes of upper respiratory tract.

Eye Contact: Corrosive to eyes with possible permanent corneal damage.

Skin Contact: Corrosive to skin. Prolonged or repeated exposure can cause permanent damage to skin.

Inhalation: Spray mist or fog may cause irritation to the respiratory tract. High concentrations may cause headache, nausea, or coughing.

Ingestion: Harmful if swallowed. May cause corrosive damage to mouth, throat or stomach.

Medical conditions generally aggravated by exposure: Pre-existing skin and lung diseases.

FIRST AID PROCEDURES -

Eye Contact: Immediately flush with cool running water for 15 minutes, while holding eyelids apart. Contact a physician immediately.

Skin Contact: Immediately wash with cool water. Remove contaminated clothing. Contact physician if irritation develops.

Inhalation: Move to fresh air. Monitor breathing and treat symptomatically. Call a physician.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Drink 1-2 glasses of water or milk. Call a physician or poison control center immediately. Never give anything to drink to an unconscious person.

SECTION VII **REACTIVITY DATA -**

Stability: Stable

Incompatibility (materials to avoid): Oxidizers, acids, soft metals.

Hazardous decomposition products: Possibly CO2 or hydrogen.

Hazardous polymerization: Will not occur

SECTION VIII **SPILL LEAK PROCEDURES -**

Steps to be taken in case material is released or spilled: Wear protective equipment. Small spill: mop up and rinse area. Large spills: Dike spill. Absorb with inert material. Containerize. Rinse area with water. Keep out of storm sewers and waterways.

Waste disposal information: Properly neutralized liquid (pH 6 to 9) may be permitted to be disposed at a suitable facility in accordance with all federal, state and local regulations.

SECTION IX **SPECIAL PROTECTION INFORMATION -**

Respiratory Protection: If mist is not controlled by local ventilation, use NIOSH respirators for organic vapors.

Ventilation: Central room or local exhaust.

Protective gloves: Rubber, pvc, nitrile

Eye Protection: Splash proof glasses or goggles.

Other protective measures: Rubber boots if there is a spill.

SECTION X **SPECIAL PRECAUTIONS -**

Handling and Storage:

Keep container closed when not in use. Do not breathe mists or vapors. Keep out of reach of children. Mix only with water. For industrial & institutional use only. Wash contaminated clothing before reuse.

SECTION XI **TOXICITY DATA -**

This product does not contain ingredients considered to be carcinogenic by the NTP, IARC, or OSHA.

SECTION XII **REGULATORY INFORMATION –**

SECTION XIII **DOCUMENTARY INFORMATION** -

Date issued: 6/28/2008 Supercedes: New issue Reason for update:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MSDS: HYPER-CONCENTRATE Envirox Industrial Degreaser

ENVIROX

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: EnvirOx™ Green Certified: Industrial Degreaser Hyper-Concentrate (Product #6)

Product Code: 143GS

Recommended use of the chemical and restrictions on use: Descalant

Manufacturer/Supplier:
EnvirOx LLC P.O. Box 2327, 1938 E. Fairchild St., Danville, IL 61834-2327 USA Tel 1-217-442-8596

Emergency Phone Number:
ChemTel Inc. 800-255-3924, +1-813-248-0585

SECTION 2 –HAZARD(S) IDENTIFICATION

Classification of the substance or mixture:

Eye Damage/Irritation Category 1
Skin Sensitization Category 1
Signal Word – Danger
Hazard statements:
May cause an allergic skin reaction.
Causes serious eye damage.
Precautionary statements:
Avoid breathing mist/spray.
Wear gloves and eye protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
If on skin: Wash with plenty of water.
If skin irritation occurs or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Dispose of contents/container as waste in accordance to local regulations.
Other hazards (Hazards Not Otherwise Classified): None
Ingredients with Unknown Acute Toxicity: None

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixture
Hazardous components:

Ingredient	CAS Number	Percent
Sodium n-laurylsacronsinate	137-16-6	2.5-10
glycine, N-(hydroxymethyl)-monosodium salt	70161-44-3	<0.5%

Exact percentages and identities are withheld as trade secrets.

SECTION 4 - FIRST-AID MEASURES

Description of necessary measures:
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately rinse with water. If skin irritation or rash occurs, consult a doctor.
After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.
Most important symptoms and effects, both acute and delayed: Breathing difficulty, coughing, cramp, nausea, dizziness. Strong irritant with the danger of severe eye injury.
Indication of any immediate medical attention and special treatment needed: If necessary oxygen respiration treatment.

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SECTION 5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media: CO_2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Unsuitable extinguishing media: None.
Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire..
Special protective equipment and precautions for fire-fighters: Wear self-contained respiratory protective device. Wear fully protective suit.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures: Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Particular danger of slipping on leaked/spilled product.
Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Clean the affected area carefully; suitable cleaners are: Warm water.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Avoid splashes or spray in enclosed areas. Avoid breathing mist/spray. Wash contaminated clothing before reuse.
Conditions for safe storage, including any incompatibilities: Avoid storage near extreme heat, ignition sources or open flame. Unsuitable Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well-sealed receptacles.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters:

Component	OSHA PEL	ACGIH TLV	WEEL (USA)
CAS:25322-68-3 polyethylene glycol (particulates)			10 mg/m^3 (as a particulate)

Appropriate engineering controls: No further information available.
Personal protective equipment:
Respiratory protection: Not required under normal conditions of use. For spills, respiratory protection may be advisable. Use suitable respiratory protective device when aerosol or mist is formed. Use suitable respiratory protective device in case of insufficient ventilation.
Protection of hands: Rubber gloves, Butyl rubber or Neoprene gloves
Eye protection: Safety glasses. Avoid contact with eyes. Contact lenses should not be worn.
Body protection: Protective work clothing. Contaminated work clothing must not be allowed out of the workplace. Wash contaminated clothing before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form: Liquid Color: Clear
Odor:	Unscented
Odor threshold:	Not determined
pH value at 20 °C (68 °F):	6.5
Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	212 °F / 100 °C
Flash point:	Not applicable
Evaporation rate:	Not determined
Flammability (solid, gaseous):	Not applicable
Explosive Limits	Lower: Not Determined

Explosive Limits	Upper: Not Determined
Vapor pressure:	23 hPa (17 mm Hg)
Vapor density:	Not determined
Relative Density:	Not determined
Solubility:	Fully miscible
Partition coefficient (noctanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined

Reactivity: No further information available. **Chemical stability:** No decomposition if used and stored according to specifications.

SECTION 10 - STABILITY AND REACTIVITY

Possibility of hazardous reactions: Reacts with strong acids. Reacts with reducing agents. Reacts with strong oxidizing agents.
Conditions to avoid: No further relevant information available. **Incompatible materials:** No further relevant information available.
Hazardous decomposition products: Possible in traces.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
Carcinogenic categories:

NTP**(National ToxicologyProgram):**	None of the ingredients are listed.
IARC **(International Agency for Research on Cancer):**	None of the ingredients are listed.
OSHA**(Occupational Safety and Health Administration):**	None of the ingredients are listed.

Inhalation: Slight irritant effect on mucous membranes (based on components).
Ingestion: None under normal use.
Skin contact: May cause allergic skin reaction (Glycine, N-(hydroxymethyl)-,monosodium salt). May irritate skin (based on components).
Eye Contact: Strong irritant with the danger of severe eye injury (based on components).
Symptoms related to the physical, chemical and toxicological characteristics: No further information available.
Delayed and immediate effects and also chronic effects from short and long term exposure: No further information available.
Measures of toxicity: No further information available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:
Aquatic toxicity: No further relevant information available.
Terrestrial toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Other adverse effects: This statement was deduced from products with a similar structure or composition. Due to available data on eliminability/decomposition and bioaccumulation potential, a prolonged damage of the environment is unlikely. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal methods: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
Contaminated packaging: Disposal must be made according to official regulations.
Recommended cleansing agents: Water only

SECTION 14 - TRANSPORT INFORMATION

UN number **(DOT, IMDG, IATA):**	Not applicable.
UN proper shipping name **(DOT, IMDG, IATA):**	Not applicable.
Transport hazard class(es) **(DOT, IMDG, IATA):**	Not applicable.
Packing group **(DOT, IMDG, IATA):**	Not applicable.
Environmental hazards: **Marine pollutant (Yes/No):**	No
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
Special precautions for user:	Not applicable.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture: United States (USA) SARA

Section 355 **(extremely hazardous substances):**	None of the ingredients are listed.
Section 313 **(specific toxic chemical listings):**	None of the ingredients are listed.
TSCA **(Toxic Substances Control Act):**	All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:	None of the ingredients are listed.
Chemicals known tocause reproductive toxicity for females:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients are listed.
Chemicals known to cause developmental toxicity	None of the ingredients are listed.

Carcinogenic Categories:

EPA**(Environmental Protection Agency):**	None of the ingredients are listed.

Chemical safety assessment: A chemical safety assessment has not been carried out.

SECTION 16 - OTHER INFORMATION

Issue Date 28 – September– 2015
Revision Date –
Version # 01

Disclaimer: EnvirOx LLC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

MSDS: DILUTED Envirox Industrial Degreaser

ENVIROX **SAFETY DATA SHEET**

SECTION 1 - IDENTIFICATION

Product Identifier: EnvirOx™ Green Certified: Industrial Degreaser Hyper-Concentrate (Water Dilutions: 1-12oz/gal)

Product Number: 143GS

Recommended use of the chemical and restrictions on use: Cleaning agent / Cleaner

Manufacturer/Supplier: EnvirOx LLC P.O. Box 2327, 1938 E. Fairchild St., Danville, IL 61834-2327 USA Tel 1-217-442-8596

Emergency Phone Number: ChemTel Inc. 800-255-3924, +1-813-248-0585

SECTION 2 –HAZARD(S) IDENTIFICATION

Classification of the substance or mixture:
The product is not classified according to OSHA GHS regulations within the United States
Signal Word – Not Regulated.
Hazard statements: Not Regulated.
Precautionary statements: Not Regulated.
Other hazards: None
Ingredients with Unknown Acute Toxicity: None

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixture
Hazardous components: None in reportable quantities.

SECTION 4 - FIRST-AID MEASURES

Description of necessary measures:
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Rinse with water. If skin irritation continues, consult a doctor.
After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.
Most important symptoms and effects, both acute and delayed: Gastric or intestinal disorders. Nausea.
Indication of any immediate medical attention and special treatment needed: No special measures required. .

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Unsuitable extinguishing media: None.
Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.
Special protective equipment and precautions for fire-fighters: Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures: Use respiratory protective device against the effects of fumes/dust/aerosol. Ensure adequate ventilation. Wear protective equipment. Keep unprotected persons away. Particular danger of slipping on leaked/spilled product.
Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Clean the affected area carefully; suitable cleaners are: Warm water.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Keep receptacles tightly sealed.
Conditions for safe storage, including any incompatibilities: Store away from foodstuffs. Store in cool, dry conditions in well-sealed receptacles.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace
Appropriate engineering controls: No further information available.
Personal protective equipment:
Respiratory protection: Not required under normal conditions of use. For spills, respiratory protection may be advisable. Use suitable respiratory protective device when aerosol or mist is formed.
Protection of hands: Gloves not required under normal conditions of use. Wear protective gloves to handle contents of damaged or leaking units. Rubber gloves, Butyl rubber, Nitrile rubber, or Neoprene gloves.
Eye protection: Safety glasses
Body protection: Not required. Protection may be required for spills.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form: Liquid Color: Clear
Odor:	Light
Odor threshold:	Not determined
pH value at 20 °C (68 °F):	7.0 ± 0.5
Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	212 °F / 100 °C
Flash point:	Not applicable
Evaporation rate:	Not determined
Flammability (solid, gaseous):	Not applicable
Explosive Limits	Lower: Not Determined

Explosive Limits	Upper: Not Determined
Vapor pressure:	Not determined
Vapor density:	Not determined
Relative Density:	Not determined
Solubility:	Fully Miscible
Partition coefficient (noctanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No further information available.
Chemical stability: No decomposition if used and stored according to specifications.
Possibility of hazardous reactions: Reacts with strong acids. Reacts with strong oxidizing agents. Reacts with reducing agents.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: Possible in traces.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
Inhalation: No irritant effect on mucous membranes.
Ingestion: None under normal use.
Skin contact: Not irritant effect on skin.
Eye Contact: Slight irritant effect on eyes.
Symptoms related to the physical, chemical and toxicological characteristics: No further information available.
Delayed and immediate effects and also chronic effects from short and long term exposure: No further information available.
Measures of toxicity: No further information available. **Carcinogenic categories:**

NTP(**National ToxicologyProgram**):	None of the ingredients are listed.
IARC (**International Agency for Research on Cancer**):	None of the ingredients are listed.
OSHA(**Occupational Safety and Health Administration**):	None of the ingredients are listed.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:
Aquatic toxicity: No further relevant information available.
Terrestrial toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Other adverse effects: No further relevant information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal methods: Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements. Smaller quantities can be disposed of with household waste.
Contaminated packaging: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary with cleansing agents.

SECTION 14 - TRANSPORT INFORMATION

UN number **(DOT, IMDG, IATA)**:	Not Regulated.
UN proper shipping name **(DOT, IMDG, IATA)**:	Not Regulated.
Transport hazard class(es) **(DOT, IMDG, IATA)**:	Not Regulated.
Packing group **(DOT, IMDG, IATA)**:	Not Regulated.
Environmental hazards: **Marine pollutant (Yes/No)**:	No
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
Special precautions for user:	Not applicable.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:
United States (USA) SARA

Section 355 **(extremely hazardous substances)**:	None of the ingredients are listed.
Section 313 **(specific toxic chemical listings)**:	None of the ingredients are listed.
TSCA **(Toxic Substances Control Act)**:	All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients are listed.
Chemicals known to cause developmental toxicity	None of the ingredients are listed.

Carcinogenic Categories:

EPA**(Environmental Protection Agency)**:	None of the ingredients are listed.

Chemical safety assessment: A chemical safety assessment has not been carried out.

SECTION 16 - OTHER INFORMATION

Revision Date 28 – January - 2016

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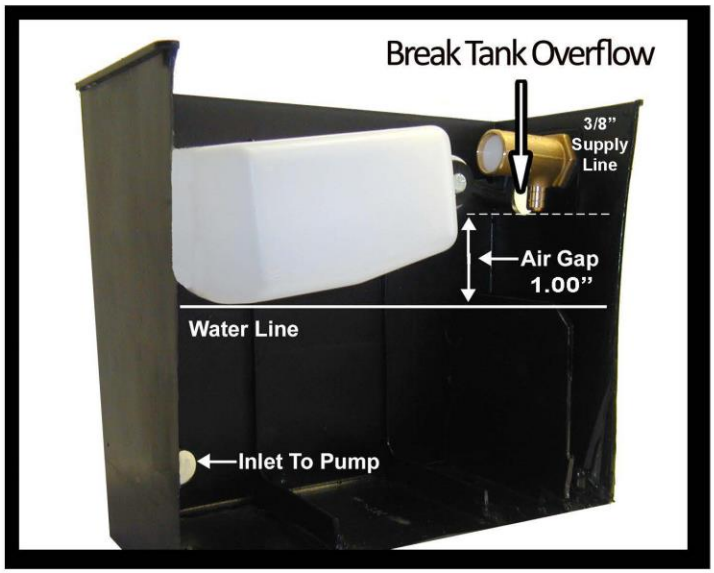

Nation Wide ETL Listed, Back Flow Prevention Already Provided Within Easiwsh Systems.
No Other Forms of Back Flow Prevention Needed

For information or questions regarding the ETL Listing please contact:

Interkek Testing Services
ETL SEMKO

Intertek Testing Service NA, Inc
7250 Hudson Blvd, Suite 100
Oakdale, MN 55128
www.etlsemko.com

Quality Built with Employee Safety

1109 10th Ave North, Clear Lake, IA 50428

641-357-9274 - Office

info@easiwash.com - Email

www.easiwash.com

Pump Maintenance and Oil Recommendations

Pump crankcase oil must be changed after an initial 50-hour break-in period. Oil must be changed every 3 months or at 500 hour intervals thereafter. Replace only with a recommended 30W Non-detergent oil such as GP100 available from Easiwash Cleaning Systems. Other brand oil must be approved prior to filling.
Note: Failure to follow these recommendations could void pump warranty.

Crankcase Oil Capacity: 14 oz
Oil Recommendation: GP100

Operation Instructions/Inspection

The pump on your Easiwash Cleaning system is designed to provide 3.6 gallons per minute at a maximum of 1750 rpm. Due to the stress and temperature conditions placed on the internal components, it is crucial to not only change oil at recommended intervals, but to also understand proper operation and inspection tips.

* **Do not allow** the machine/pump to operate in a "by-pass" state for an extended length of time. This occurs when the gun is disengaged and the unit continues to run, which will by-pass water and recirculate through the pump. This creates heat as no new cooler water it introduced which can cause condensation, trips the thermal overload located on the side, or overheats the ceramic piston which could crack when cool water is reintroduced. If you stop powerwashing to move equipment or locations, shut the machine off.

* **In extremely hot environments** condensation may accumulate inside the crankcase after prolonged useage. Water can also enter the crankcase due to a cracked ceramic piston. This creates an overfill situation which results in a blowout of liquid through the filler cap or in some cases the site glass. This can also occur if the oil level is filled over the red dot.

* **Change oil** at least twice each year either by removing the drain plug on the back of the crankcase or pumping it out of the oil filler cap located on the top. Refill to the operating level (approx. 14oz) as noted by the red dot on the site glass. Note: the drain plug is difficult to access without removing the water resevoir, a hand pump may be required.

* **Inspect yearly for leaks** under the manifold. Green lines indicate water leaks and cracked ceramic pistons, darker lines indicate oil leaks and worn seals. Both will lead to eventual pump failure and can be rebuilt if diagnosed early.

* Visually inspect the site glass, break in oil is clear as indicated in the above photo, operating oil is red, a dark or completely black site glass is the sign of oil breakdown and trouble. Milky white indicates the presence of water in the oil.

Warranty Statement

Parts

EWS, LLC (dba Easiwash Cleaning Systems) warrants this product against defects in material and workmanship for a period of one year from the date of its delivery. Any replacement parts furnished at no cost to purchase in fulfillment of this warranty, are warranted only for the unexpired portion of the original warranty.

Limitations

Purchaser will be responsible for the costs of any service call requested to demonstrate or confirm the proper operation of the appliance, to correct an improper installation from a 3rd party installer (Not Easiwash) they may have performed, or to correct malfunctions in the appliance created by operation of the appliance in a manner not prescribed by, or cautioned against, in the Operators Manual.

This Warranty does not cover damage resulting from accident, misuse, abuse, improper installation or operation, lack of reasonable care, unauthorized modification, the affixing of any attachment not provided.

This Warranty covers only defective materials and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper maintenance, improper use, abuse or negligence. The cost of maintenance and replacement of normal wear parts, such as nozzles, hoses, and quick couplers, shall be paid for by the purchaser.

Examples of improper use are:

- The use of chemicals not specifically designed for use through a power cleaning system.
- The use of an acid or high Ph degreasers through the power system.
- Failure to follow lubrication instructions.
- Operation without proper water input.
- Operation with incoming water temperatures exceeding 140˚F
- Operation with extremely high or low electricity line voltages. (Maximum tolerance of plus or minus 10% of the recommended voltage.)
- Failure to prepare system for freezing temperatures.

Disclaimer:

The warranty described in this agreement is in lieu of all other warranties. The parties agree that the implied warranties of merchantability and fitness for a particular purpose and all other warranties, express or implied, are excluded from this agreement.

Warranty Statement (continued)

Warranty for 3rd Party Installation:

If purchaser installs an Easiwash Cleaning System on their own or through a 3rd party, the **Self-Install Playbook (V1.0)** and **Operators Manual (V1.0)** must be followed.

If we are dispatched out for an alleged warranty claim and upon arrival, we find a detail that was not followed in the install playbook or operators manual, and the error caused the alleged warranty claim, the claim will be denied and the purchaser will be invoiced for mobilization, labor and necessary parts to get the system working.