



**KMI  
GLOBAL**

**Eco Green 54-FG**



June 22, 2019

Zach Lafler  
KMI Cleaning Solutions, Inc.  
157 Beadle Lake Road  
Battle Creek, MI 49014

Dear Mr. Lafler:

This is in response to your request for a regulatory opinion on the ingredients in your proprietary cleaning products, identified as "Performance 191 & "Eco-Green 54-FG." Based on our understanding of the intended use of your product, we conclude that all the ingredients are regulated and can be used in your cleaning product.

The use of the ingredients in your product are predicated on being used consistent with current Good Manufacturing Practices which may require following with a potable water rinse, if applicable.

We trust that this information is satisfactory and helpful to your goals. Please let us know if you have questions.

Thank you for the opportunity to be of service to your company.

Sincerely,

Chairman & CEO



157 Beadle Lake Road  
Battle Creek, MI 49014  
1-800-772-4616

Date of Issue: 1/30/2019  
Date of Revision: 6/21/2022

### Letter of Guarantee

**Product Name: Eco Green 54-FG**  
**Product Item Code: KEG54FG**

KMI Cleaning Solutions, Inc. hereby guarantees that Eco Green 54-FG is safe and effective under the intended conditions of use as outlined in the product use instructions in accordance with FDA, Code of Federal Regulations, Title 21 and USDA/FSIS Sanitation Performance Standards Compliance §416.4(a), A-1 Guidelines where applicable. This product will not adulterate food products if it is used according to product use instructions.

Appropriate safety precautions must be used in compliance with plant safety procedures and standards while handling and using this product. Eco Green 54-FG is intended for use as a general cleaning detergent/degreaser that has a neutral pH. Specifically targeting heavy Palm & Veg oils but also has success on concentrated alcohols and juices.

Use Instructions: Cold Pipelines- Use 3-4 quarts of Eco Green 54-FG per 100 gallons of water at 150°-160°F for 15-20 minutes. Hot Circuit Cleaning, Cleaning of Hot Lines, Pasteurizers and Heat Exchange Surfaces- requires concentration ranging from 8-16 quarts of Eco Green 54-FG for each 100 gallons of water at 160°-190°F. Cleaning temperatures should exceed process temperatures by at least 5 to 10 degrees for best results. For circulation cleaning of milk lines use 1 to 3 oz. per gallon of hot water (145°-155°F). After cleaning cycle, triple rinse thoroughly with potable water at 180°-200°F before sanitizing and using equipment. When used in processing areas, food products and packaging materials must be removed from the room or carefully protected. After using Eco Green 54-FG, all surfaces must be thoroughly rinsed with potable water.

Sincerely,

**Zach Lafler**

Director of Business Development

KMI Cleaning Solutions, Inc.

269-964-2257 or (800) 772-4616

[zlafler@kmicleaningsolutions.com](mailto:zlafler@kmicleaningsolutions.com)



157 Beadle Lake Road  
 Battle Creek, MI 49014  
 1-800-772-4616

# Standard Operating Procedure Eco Green 54-FG

The following is recommended for monitoring and maintaining your Food Grade cleaning system.

**Detergent Vat:** Utilizing Eco Green 54-FG *Approved for Food Grade and Kosher applications.*

**Vat Build:** Recommended Dosage of 3-5% when utilizing Eco Green 54-FG. See example below.

<u>Detergent Vat:</u>	<u>330 gl</u>	<u>525 gl</u>
Eco Green 54-FG:	3-5%	10-17 gl
Water:	Balance	Balance

Monitoring Method: Utilizing a Detergent Titration Kit, Part# Target # **1240-1860PPM**. See chart below. Please carefully read all instructions provided with kit prior to testing.

Number of Drops	PPM Value	Number of Drops	PPM Value	Number of Drops	PPM value	Number of Drops	PPM value	Number of Drops	PPM Value
1	310	10	3100	22	6820	32	9920	42	13020
2	620	14	4340	24	7440	34	10540	44	13640
4	1240	16	4960	26	8086	36	11160	46	14260
6	1860	18	5580	28	8680	38	11780	48	14880
8	2480	20	6200	30	9300	40	12400	50	15500

It is recommended that titration of your cleaning system be performed at the beginning of each shift. These results should be recorded on the daily shift report along with vat temperature and cleaning results. This is the best way to ensure your cleaning system is being monitored and properly maintained. When your system read below 1240 PPM the operator knows it is time to boost the vat. **Recommended dosage when boosting is ½ the initial vat dosage.** Not recommended to boost the same vat more than twice before dropping and rebuilding with fresh product.

**Example:** Initial Vat Dosage of 50 gallons = a boost of 25 gallons

**Government Regulations:**  
 Manufactured in accordance with Code of Federal Regulations, title 21 and FDA/USDA guidelines.



157 Beadle Lake Road  
 Battle Creek, MI 49014  
 1-800-772-4616

# PRODUCT BULLETIN

## ***Concentrate Internal Tank Wash Cleaner & Degreaser***

## **Eco-Green 54-FG**

Conforms to USDA/FSIS Sanitation Performance  
 Standards Compliance §416.4(a), A-1 and A-8  
 Guidelines.

### PRODUCT DESCRIPTION

- Eco-Green 54-FG is a highly concentrated blend of Surfactants.
- Cleaning performance enhanced by a blend of chelating and water conditioning agents.
- Specifically designed for use in high- and low-pressure CIP cleaning systems.
- Can be used on a wide range of soil types but designed specifically for concentrated oils and raw liquids used in the food processing industry.
- Optimum operating temperature range is 140°-210°F

### FEATURES AND BENEFITS

- Low Foaming.
- Aids in automatic and manual CIP cleaning.
- Penetrates soils thoroughly and quickly.
- Saponifies fats, greases and oils cooked onto surfaces for easy rinsing.
- Rinses loosened soils easily and quickly from contact surfaces.

### TYPICAL SPECIFICATIONS

Appearance.....	Clear Liquid
Color.....	Clear, Water White
Odor.....	Typical Detergent
Solubility.....	Complete in water
pH Neat.....	8.5
Specific Gravity.....	1.07
Foaming.....	Low Foaming
Flash Point.....	>212F

### DILUTION

- Minimum 600ppm to Maximum 2480ppm
- Conductivity Range: Minimum 1.60mS to Maximum 8.70mS
- Test Method, "Titration w/ Reagents" KMI part #203DTK

### SAFETY

- Keep out of reach of children.
- Read label instructions and SDS carefully.

### Government Regulations:

Manufactured in accordance with Code of Federal Regulations, title 21 and FDA/USDA guidelines.

**1. IDENTIFICATION**

**Product Identifier**

**Product Name** ECO GREEN 54-FG

**Other means of identification**

**Product Code** KEG54FG

**UN/ID No** *Not Regulated/ IMO approved & Kosher/FDA approved, Supporting Food Grade documents in process.*

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Cleaning agent.

**Details of the supplier of the safety data sheet**

**Supplier Address**

KMI GLOBAL  
157 BEADLE LAKE RD  
BATTLE CREEK, MI 49014

**Emergency Telephone Number**

**Company Phone Number** Phone: (800) 772-4616

**Emergency Telephone (24 hr.)**

**INFOTRAC:** 1-352-323-3500 (International)  
1-800-535-5053 (North America)

**2. HAZARDS IDENTIFICATION**

**Appearance** Clear yellowish

**Physical State** Liquid

**Odor** Characteristic

**Classification**

Skin Irritation	Category 2
Serious eye damage	Category 1

**Signal Word**

**Danger**



**Precautionary Statements - Prevention**

Wash skin thoroughly after handling. Wear protective gloves/ eye protection/ face protection.

**Precautionary Statements - Response**

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 or doctor / physician. IF ON SKIN: Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/ attention.

**Precautionary Statements - Storage**

Store in a well-ventilated place. Store in corrosive resistant container with a resistant inner liner.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS		
Chemical Name	CAS No	Weight-%
Poly (oxy-1,2-ethanedy), a-(2-propylheptyl)-w-hydroxy-	160875-66-1	10-25 %
Sodium dodecyl sulphate	151-21-3	5-10 %
**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret. **		
4. FIRST-AID MEASURES		

**First Aid Measures**

- Eye Contact** IF IN EYES: Rinse immediately with plenty of water, also under the eyelids for at least 10 minutes. Consult an eye specialist immediately.
- Skin Contact** IF ON SKIN (or hair): Wash off with soap and plenty of water. If symptoms call a physician. Take off all contaminated clothing immediately.
- Inhalation** IF INHALED: Remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If symptoms persist call a physician. If unconscious place in recovery position and seek medical advice.
- Ingestion** IF SWALLOWED: Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Call a physician immediately.

**Most important symptoms and effects**

- Symptoms** Severe eye irritation.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Water spray, foam, powder or CO2

**Unsuitable Extinguishing Media** High volume water jet.

**Specific Hazards Arising from the Chemical**

Fire may cause evolution of: Carbon oxides, under certain fire conditions fire trace of other toxic products cannot be excluded.

**Hazardous Combustion Products** None known.

**Protective equipment and precautions for firefighters** Wear self-contained breathing apparatus and protective suit.

**Further Information** Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal advice equipment. Keep away unprotected persons. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe gas/ fumes/ vapor/ spray.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid subsoil penetration. If material reaches soil inform authorities responsible for such cases.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Ensure adequate ventilation. Absorb with liquid-binding material (sand, binders, and universal binders). Treat recovers material as described in the up section "Disposal considerations". After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling** Keep container tightly closed. Provide enough air exchange and/or exhaust in work rooms. Do not breathe vapors. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

**Hygiene Measures** Take off contaminated clothing immediately. DO not breathe gas/ fumes/ vapors/ spry. Avoid contact with the skin and the eyes. Smoking, eating and drinking should be prohibited in the application area. Provide adequate ventilation. Wash hands before breaks and at the end of the workday.



**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep in areas equipped with solvent resistant flooring. Keep tightly closed in a dry and cool place. Keep in a well-ventilated place.
<b>Incompatible Materials</b>	Oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines**

Contains no substance with occupational exposure limit values.

**Appropriate engineering controls**

<b>Engineering Controls</b>	Ventilation systems. Use mechanical system if in closed storage area. Eyewash stations. Showers.
-----------------------------	--------------------------------------------------------------------------------------------------

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Tightly fitting safety goggles.
<b>Skin and Body Protection</b>	Solvent resistant protective clothing.
<b>Respiratory Protection</b>	Required, if exposure limited in exceeded (e.g. OEL). In case of intensive or longer exposure use self-container breathing apparatus. Recommended Filter type: Combination filter: A-P2
<b>Hand Protection</b>	Protective gloves. As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and must be tested before use.

**General Hygiene Considerations** Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid subsoil penetration. Local authorities. If material reaches soil inform authorities responsible for such cases.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Characteristic
<b>Appearance</b>	Clear yellowish	<b>Odor Threshold</b>	Not determined
<b>Color</b>	yellowish		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH	7-8		
<b>Melting Point/Freezing Point</b>	Ca. 15°C		
<b>Boiling Point/Boiling Range</b>	100-300°C		
<b>Flash Point</b>	>100°C		
<b>Evaporation Rate</b>	Not determined	(Water = 1)	
<b>Flammability (Solid, Gas)</b>	Not applicable		
<b>Upper Flammability Limits</b>	Not determined		
<b>Lower Flammability Limit</b>	Not determined		
<b>Vapor Pressure</b>	Not determined		
<b>Density</b>	1,02 – 1.3 g/cm <sup>3</sup> (20°C)		
<b>Specific Gravity</b>	Not determined		
<b>Water Solubility</b>	Partly miscible		
<b>Solubility in other solvents</b>	Not determined		

<b>Partition Coefficient</b>	Not determined
<b>Auto-ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Kinematic Viscosity</b>	Not determined
<b>Dynamic Viscosity</b>	Not determined
<b>Explosive Properties</b>	EU legislation: At rise temperature Formation of explosive air/vapor mixtures is possible.
<b>Oxidizing Properties</b>	Not determined

## 10. STABILITY AND REACTIVITY

### Reactivity

No decomposition if stored and applied as directed.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

No dangerous reactions known under conditions of normal use.

**Hazardous Polymerization**      No data available.

### Conditions to Avoid

Keep away from heat and sources of ignition. Keep away from direct sunlight.

### Incompatible Materials

Contact with non-ferrous metals may release flammable hydrogen. Strong oxidizing agents. Strong alkalis. Aluminum.

### Hazardous Decomposition Products

Carbon oxides, under certain fire conditions, traces of other toxic products cannot be excluded.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Eye Contact**      Causes eye irritation.

**Skin Contact**      Causes eye irritation.

**Inhalation**      No data available.

**Ingestion**      No data available.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Poly(oxy-1,2-ethanediyl), a-(2propylheptylo-w-hydroxy-	-	>2000 mg/kg	>20 mg/kg
Sodium dodecyl sulphate	-	-	-

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

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

**Carcinogenicity** Not classifiable as a human carcinogen.

**Numerical measures of toxicity**

Not determined

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life with long lasting effects.

**Component Information**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Poly(oxy-1,2-ethanediyl), a-(2propylheptyl0-w-hydroxyxy-Sodium dodecyl sulphate	10-100 mg/l (algae; 72h)	10-100 mg/l (Fish; 96 h)		10-100 (Daphnia magna (water flea); 48h)
	53 mg/l (Scenedesmus; suspicious; 72 h) 30 mg/l (Scenedesmus; suspicious; 96 h) 117 mg/l (Scenedesmus; capricornutum (freshwater algae); 96h)	13,5 mg/l (Poeciliid reticulata (guppy); 96h) 4,06 mg/l (Lipomas macrochirus (Bluegill sunfish); 96h) 22,5 mg/l (Pimephales promales (fathead minnow); 96 h) 4,6 mg/l (Oncorhynchus my kiss (rainbow trout); 96 h)		1,8 mg/l (Daphnia magna (Water flea); 48 h)

**Persistence/Degradability**

Readily biodegradable.

**Bioaccumulation**

Not determined.

**Mobility**

The product is partly soluble in water.

**Other Adverse Effects**

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods**

**Disposal of Wastes** Disposal together with normal wats is not allowed. DO not let product enter drains. Send to a licensed waste management company.

**Contaminated Packaging** Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Clean container with water.

**14. TRANSPORT INFORMATION**



ועד הרבנים דעטראיט  
Council of Orthodox Rabbis of Greater Detroit

18877 West 10 Mile Road #101 Southfield, MI 48075  
Phone: (248) 559 – 5005 Fax: (248) 559 – 5202 cor@cordetroit.com www.cordetroit.com

Rabbi Yisroel M. Levin  
Rabbi Yechiel Morris  
Rabbi Elimelech Silberberg  
Presidium

December 15, 2023

To Whom It May Concern:

Rabbi Moshe Wainkrantz  
Director

The following cleaning products, manufactured by **KMI Cleaning Solutions**, 157 Beadle Lake Road, Battle Creek, MI 49014, and by **Arrow Chemical Products Inc.**, 2067 Saint Ann Street, Detroit, MI 48216, which are going to be used at Kosher tank wash facilities throughout the country, are certified Kosher and Pareve, and are under the supervision of the Council of Orthodox Rabbis of Greater Detroit. Both plants have been visited by our Kashruth administrator, Rabbi Krupnik, and will continue to be inspected throughout the year.

Rabbi Beryl Broyde  
Rabbi Yosef Krupnik  
K-COR – Kashrus Division

- **Kleen Strip Powder**
- **D-8000 Powdered Detergent**
- **Breakaway Detergent**
- **191 Performance**
- **TW-22**
- **Work Horse**
- **Citra Clean**
- **Alligator**
- **X-20**
- **Swish**
- **Orange Gator**
- **Sudz**
- **Passivator**
- **Citric Passivator**
- **Metal Prep**

The products are a family of detergents based on Kosher Pareve approved acids (sulfuric acid, phosphoric acid, etc.) and other chemicals approved as Kosher and Pareve.

This certificate is valid through December 31, 2024.

Sincerely,

Rabbi Moshe Wainkrantz  
Director, Council of Orthodox Rabbis of Greater Detroit

