



# SAFETY DATA SHEET

Product: MARC 144 CITRA CLEAN & SHINE

Form R04132

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: MARC 144 CITRA CLEAN & SHINE

SDS DATE: 05/05/16

SUPPLIER: Mid-American Research Chemical Corp. ADDRESS: P. O. Box 927 Columbus, NE 68602-0927  
PHONE: 402-564-7104 FAX: 403-563-1290  
EMERGENCY PHONE: InfoTrac 1-800-535-5053  
E-MAIL: marc@marc1.com WEBSITE: www.marc1.com

RECOMMENDED USE: All Surface Duster & Polish.

PREPARED BY: MARC

## SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable aerosol. Skin sensitizer. Aspiration hazard.

**SIGNAL WORD AND PRECAUTIONARY STATEMENTS: DANGER:** Extremely flammable aerosol. May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Keep away from heat/sparks/open flames/hot surfaces – No smoking. Do not spray on an open flame or other ignition source. Pressurized container: do not pierce or burn, even after use. Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 120°F. Dispose of contents and container in accordance with federal, state and local regulations. Acutely hazardous and a long-term hazard to the aquatic environment. Combustible.



## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS NO.</u>	<u>%</u>
White Mineral Oil	8042-47-5	20% - 40%
Butane	106-97-8	2.5% - 10%
Propane	74-98-6	2.5% - 10%
Citrus Terpenes	94266-47-4	1% - 2.5%
Polyethylene Glycol Nonylphenol Ether	9016-45-9	0.1% - 1%
Other components below reportable levels		60% - 80%

#This substance has workplace exposure limit(s).

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## SECTION 4: FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if you are concerned, irritation develops and persists, or if you feel unwell.

**SKIN:** Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical advice/attention and take along these instructions.

**INGESTION:** Call a physician or poison control center immediately. Rinse mouth. **DO NOT INDUCE VOMITING!** If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**INHALATION:** If symptoms develop move to person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if symptoms persist or you feel unwell.



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## **MOST IMPORTANT SYMPTOMS/ EFFECTS, ACUTE & DELAYED:**

May cause allergic skin reaction. Dermatitis. Aspiration may cause pulmonary edema and pneumonitis. Rash. Direct contact with eyes may cause temporary irritation. May cause an allergic skin reaction.

## **INDICATION OF IMMEDIATE MEDICAL**

**ATTENTION & SPECIAL TREATMENT NEEDED:** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**GENERAL INFORMATION:** Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **SUITABLE EXTINGUISHING MEDIA:**

Alcohol resistant foam. Water fog. Dry chemicals. Carbon dioxide (CO<sub>2</sub>).  
Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

### **UNSUITABLE EXTINGUISHING MEDIA:**

Do not use water jet as an extinguisher, as this will spread the fire.

### **SPECIAL FIRE FIGHTING PROCEDURES:**

See **SPECIFIC METHODS** below.

### **FIRE-FIGHTING EQUIPMENT/ INSTRUCTIONS:**

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

### **SPECIFIC METHODS:**

Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity; accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

**HAZARDOUS DECOMPOSITION PRODUCTS:** No hazardous decomposition products are known.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **EMERGENCY PROCEDURES/ PROTECTIVE EQUIPMENT:**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Wear appropriate personal protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP:** Refer to attached safety data sheets and/or instructions for use. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

**Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal see Section 13 of SDS.



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**ENVIRONMENTAL PRECAUTIONS:** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

## SECTION 7: HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING:

Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Pressurized container. Do not pierce or burn even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not re-use empty containers. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated contact with equipment. Use only outdoors or in well-ventilated areas. Wear appropriate personal protective equipment as required. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning ,and Stray Currents" or National fire Protection Association (NFPA) 77,"Recommended Practice on Static Electricity" or National fire Protection Association (NFPA) 70' "National Electrical Code".

**OTHER PRECAUTIONS:** **KEEP OUT OF REACH OF CHILDREN! CONTENTS UNDER PRESSURE!**

### STORAGE:

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerator or crush. Do not handle or store near an open flame, heat, or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Refrigeration recommended. Store away from incompatible materials (see Section 10 of SDS).

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational Exposure Limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

COMPONENTS	TYPE	VALUE
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

#### US. ACGIH Threshold Limit Values

COMPONENTS	TYPE	VALUE
Butane (CAS 106-97-8))	STEL	1000 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

COMPONENTS	TYPE	VALUE
Butane (CAS 106-97-8))	TWA	1900 mg/m3 800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm

**Biological limit values:** No biological exposure limits noted for the ingredient(s).

### APPROPRIATE ENGINEERING CONTROLS/ VENTILATION:

Explosion-proof general and local exhaust ventilation.



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**RESPIRATORY PROTECTION:** If permissible levels are exceeded use NIOSH mechanical filter/organic vapor cartridge or an air-supplied respirator.

**EYE/FACE PROTECTION:** Face shield is recommended. Chemical goggles are recommended.

**SKIN PROTECTION/PROTECTIVE GLOVES:** Wear appropriate chemical resistant gloves.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Wear appropriate chemical resistant clothing, Use of an impervious apron is recommended.

**THERMAL HAZARDS:** Wear appropriate thermal protective clothing, when necessary.

**WORK HYGIENIC PRACTICES:** When using, do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Cloudy.

**PHYSICAL STATE:** Gas.

**FORM:** Aerosol.

**COLOR:** White.

**ODOR:** Citrus.

**ODOR THRESHOLD:** Not available.

**pH:** 10 – 11 estimated.

**MELTING/FREEZING POINT:** Not available.

**INITIAL BOILING POINT/RANGE:** 318.69°F (159.27°C) estimated.

**FLASH POINT/METHOD USED:** -156.0°F (-104.4°C) estimated

**EVAPORATION RATE:** Not available.

**FLAMMABILITY (solid, gas):** Not available

**FLAMMABILITY LIMITS (%):** LOWER: Not available. UPPER: 12% estimated

**FLAMMABILITY EXPLOSIVE (%):** LOWER: Not available UPPER: Not available

**VAPOR PRESSURE (mmHg):** 20.74 psig @ 70°F estimated

**VAPOR DENSITY (AIR = 1):** Not available.

**RELATIVE DENSITY:** Not available.

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 0.95 – 0.97 estimated

**SOLUBILITY IN WATER:** Not available

**PARTITION COEFFICIENT, n-OCTANOL/WATER:** Not available

**AUTO-IGNITION TEMPERATURE:** Not available

**DECOMPOSITION TEMPERATURE:** Not available

**VISCOSITY:** Not available

## SECTION 10: STABILITY AND REACTIVITY

**REACTIVITY:** The product is stable and non-reactive under normal conditions of use, storage and transport.

**CHEMICAL STABILITY:** Material is stable under normal conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization does not occur.

**CONDITIONS TO AVOID:** Keep away from heat, sparks and open flame. Avoid temperatures exceeding the flash point.

**INCOMPATIBILITY (MATERIAL TO AVOID):** Strong oxidizing agents. Fluorine. Chlorine. Nitrates.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** No hazardous decomposition products are known.

**HAZARDOUS POLYMERIZATION:** Does not occur. **CONDITIONS TO AVOID (POLYMERIZATION):** Will not occur



**SECTION 11: TOXICOLOGICAL INFORMATION**

**INFORMATION ON LIKELY ROUTES OF EXPOSURE:**

**EYES:** Direct contact with eyes may cause temporary irritation.

**SKIN:** Causes mild skin irritation. May cause an allergic skin reaction.

**INGESTION:** Expected to be a low ingestion hazard. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**INHALATION:** Not available.

**SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:**

Dermatitis. Aspiration may cause pulmonary edema and pneumonitis. Rash. May cause allergic skin reaction. Direct contact with eyes may cause temporary irritation.

**INFORMATION ON TOXICOLOGICAL EFFECTS:**

**ACUTE TOXICITY:** May be fatal if swallowed and enters airways. May cause allergic skin reaction. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

PRODUCT	SPECIES	TEST RESULTS
<b>MARC 144 CITRA CLEAN &amp; SHINE</b>		
<b>ACUTE</b>		
<i>Dermal</i> LD50	Rat	78652 ml/kg
<i>Inhalation</i> LC50	Rat	4104 mg/l/4h
COMPONENTS	SPECIES	TEST RESULTS
<b>Butane (CAS 106-97-8)</b>		
<b>ACUTE</b>		
<i>Inhalation</i> LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l
<b>Propane (CAS 74-98-6)</b>		
<b>ACUTE</b>		
<i>Inhalation</i> LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l 658 mg/l/4h
<b>White Mineral Oil (CAS 8042-47-5)</b>		
<b>ACUTE</b>		
<i>Dermal</i> LD50	Rabbit	>2000 mg/kg, 24 Hours
<i>Inhalation</i> LC50	Rat	2.18 mg/l, 4 Hours
<i>Oral</i> LD50	Rat	5000.0001 mg/kg

\*Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation:** Causes mild skin irritation.



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**Serious eye damage/eye irritation:** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization:** Not a respiratory sensitizer.

**Skin sensitization:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):** Not listed.

**Reproductive toxicity:** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity-Single exposure:** Not available.

**Specific target organ toxicity-Repeated exposure:** Not available.

**Aspiration hazard:** May be fatal if swallowed and enters airways. Not an aspiration hazard.

**Chronic effects:** N/A

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** Toxic to aquatic life with long lasting effects.

PRODUCT	SPECIES		TEST RESULTS
<b>MARC CITRA CLEAN &amp; SHINE</b>			
<b>Aquatic</b>			
Algae	IC50	Algae	20858 mg/L, 72 Hours
Crustacea	EC50	Daphnia	2069 mg/L, 48 Hours
Fish	LC50	Fish	12119 mg/L, 96 Hours

COMPONENTS	SPECIES		TEST RESULTS
<b>Polyethylene Glycol Nonylphenol Ether (CAS 9016-45-9)</b>			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	12.2 mg/L, 48 Hours
Fish	LC50	Bluegill (Lepomis macrochirus)	1 – 1.8 mg/l, 96 Hours
<b>White Mineral Oil (CAS 8042-47-5)</b>			
<b>Aquatic</b>			
Fish	LC50	Fish (Oncorhynchus kisutch)	10000.0001, 96 Hours

\*Estimates for product may be based on additional component data not shown.

**Persistence and degradability:** No data is available on the degradability of this product.

**Bioaccumulative potential:** No data available.

**Partition coefficient n-octanol / water (log Kow)**

Butane	2.89
Propane	2.36

**Mobility in soil:** No data available.

**Other adverse effects:** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.



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- LOCAL DISPOSAL REGULATIONS:** Dispose in accordance with all applicable regulations.
- HAZARDOUS WASTE CODE:** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
- WASTE FROM RESIDUES/  
UNUSED PRODUCTS:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal instructions).
- CONTAMINATED PACKAGING:** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

## SECTION 14: TRANSPORT INFORMATION

### U.S. DEPARTMENT OF TRANSPORTATION (for ground/non-bulk containers)

**CONTAINER SIZE(S):** Aerosol Can (18 oz.)  
**PROPER SHIPPING NAME:** CLEANING COMPOUND.  
**HAZARD CLASS:** N/A  
**ID NUMBER:** None  
**PACKING GROUP:** None  
**LABEL STATEMENT:** LTD QTY

## SECTION 15: REGULATORY INFORMATION

**U.S. FEDERAL REGULATIONS:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
 All components are on the U.S. EPA TSCA Inventory List.

**TSCA (TOXIC SUBSTANCE CONTROL ACT): Section 12(b) Export Notification (40 CFR 707, Subpt. D):** Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4):** Not listed.

**SARA 304 EMERGENCY RELEASE NOTIFICATION:** Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):** Not listed.

### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)**

**Hazard categories**  
 Immediate Hazard – Yes  
 Delayed Hazard – No  
 Fire Hazard – Yes  
 Pressure Hazard – Yes  
 Reactivity Hazard - No

**SARA 302 Extremely Hazardous Substance:** N/A

**SARA 311/312 Hazardous chemical:** No

**SARA 313 (TRI reporting):** N/A

### **Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:** Not regulated.

**Clean Air Act (CAA) Section 112 (r) Accidental Release Prevention (40 CFR 68.130)**

Butane (CAS 106-97-8)  
 Propane (CAS 74-98-6)

**Safe Drinking Water Act (SDWA)** Not regulated.



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## SECTION 16: OTHER INFORMATION

HMIS/NFPA Ratings: Health = 2  
Flammability = 2  
Reactivity = 0  
Other = -  
Protection = X

REVISION DATE: 05/05/16

N/A = Not Applicable, N/D = Not Determined, N/E = Not Established

DISCLAIMER: While the information contained herein is believed to be correct, no warranties are made with respect thereto, and all liability from reliance thereon is disclaimed.