



SAFETY DATA SHEET

Product: MARC 230 CITRUS METAL PARTS CLEANER

Form R04132

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: **MARC 230 CITRUS METAL PARTS CLEANER**

SDS DATE: 12/9/15

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: Parts cleaner.

PREPARED BY: MARC

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Harmful if inhaled. May cause an allergic skin reaction. Causes eye irritation.

SIGNAL WORD AND PRECAUTIONARY STATEMENTS-- DANGER: Contains petroleum distillates and orange terpenes. Flammable liquid and vapor. May accumulate electrostatic charge and ignite and explode. May be fatal if swallowed and enters airways. Causes skin irritation. Suspected of causing cancer. May cause drowsiness or dizziness. Toxic to aquatic life with long-lasting effects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks open flames and hot surfaces. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection. Wash hands and any exposed skin thoroughly after handling. If exposed or concerned: Get medical attention. If on skin or hair: Take off immediately all contaminated clothing. Rinse skin and hair with water. If skin irritation occurs: Get medical attention. Wash contaminated clothing before reuse. If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or physician if you feel unwell. If swallowed: Immediately call a Poison Center or doctor. Do NOT induce vomiting. In case of fire: Use water spray, fog or regular foam for extinction. Collect spillage. Store locked up in a cool, well-ventilated place in a tightly closed container. Dispose of in accordance with federal, state and local regulations.



POTENTIAL HEALTH EFFECTS: See Section 11 for more information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>%</u>
Petroleum Distillate	8052-41-3	40-60
Orange Terpenes	5989-27-5	40-60

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. If concerned, get medical advice/attention or call a POISON CENTER if irritation develops or persists and you feel unwell.

SKIN (or hair): Take off immediately all contaminated clothing. Wash off with soap and plenty of water. In case of eczema or other skin disorders, or if rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse.

INGESTION: Rinse mouth. If swallowed, seek medical advice immediately and show this container or label.

INHALATION: Remove to person to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.



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MOST IMPORTANT SYMPTOMS/

EFFECTS, ACUTE & DELAYED: May cause drowsiness and dizziness, headache, nausea, vomiting. Exposed individuals may experience eye tearing, redness, and discomfort. Irritation of eyes and mucous membranes. Irritation of nose and throat. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

INDICATION OF IMMEDIATE MEDICAL

ATTENTION & SPECIAL TREATMENT NEEDED: Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

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

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water fog, foam, dry chemical powder, carbon dioxide (CO₂).

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

SPECIAL FIRE FIGHTING PROCEDURES

FIRE-FIGHTING EQUIPMENT: In case of fire and /or explosion do not breathe fumes. A self-contained breathing apparatus and full protective clothing must be worn. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Flammable liquid and vapor. Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. 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. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 if SDS.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Refer to attached safety data sheets and/or instructions for use. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Never return spills to original containers for re-use. For waste disposal, see Section 13 of the SDS.

ENVIRONMENTAL PRECAUTIONS: Avoid discharge into drains, water courses or onto the ground.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good hygiene practices.

OTHER PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN! READ LABEL CAREFULLY!



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STORAGE: Store locked up. Keep away from heat, sparks and open flame. Store in cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of SDS).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits-Petroleum Distillates

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

COMPONENTS	TYPE	VALUE
Petroleum Distillate (CAS 8052-41-3)	PEL	100 ppm 2900 mg/m ³

US. ACGIH Threshold Limit Values

COMPONENTS	TYPE	VALUE
Petroleum Distillate (CAS 8052-41-3)	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

COMPONENTS	TYPE	VALUE
Petroleum Distillate (CAS 8052-41-3)	Ceiling	1800 mg/m ³
	TWA	350 mg/m ³

APPROPRIATE ENGINEERING CONTROLS: Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

VENTILATION: Explosion-proof general and local exhaust ventilation.

RESPIRATORY PROTECTION: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn – a chemical respirator with organic vapor cartridge.

EYE/FACE PROTECTION: Chemical splash goggles where there is a potential for eye contact.

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

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear suitable protective clothing and gloves.

WORK HYGIENIC PRACTICES: When using, do not eat, drink or 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:

PHYSICAL STATE: Liquid.
COLOR: Clear liquid.
ODOR: Orange.
ODOR THRESHOLD: Not available.
pH: Not available.
MELTING/FREEZING POINT: Not applicable/ Not available.
INITIAL BOILING POINT/RANGE: 310°F
FLASH POINT/METHOD USED: 110.0°F (TCC)
EVAPORATION RATE: >1 Ethyl ether = 1
FLAMMABILITY (solid, gas): Not available



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UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:

Explosive limit - lower:	Not available
Explosive limit - upper:	Not available
VAPOR PRESSURE (mmHg):	Not determined
VAPOR DENSITY (AIR = 1):	Not determined
RELATIVE DENSITY:	0.82
SPECIFIC GRAVITY (H ₂ O = 1):	Not available
SOLUBILITY IN WATER:	Negligible
PARTITION COEFFICIENT, n-OCTANOL/WATER:	Not available
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not available
OTHER INFORMATION	
DENSITY:	6.8 lbs./gal.

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: No dangerous reaction known under conditions of normal use.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

INCOMPATIBILITY (MATERIAL TO AVOID): Strong acids. Strong oxidizing agents. Halogens.

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

HAZARDOUS POLYMERIZATION: N/A **CONDITIONS TO AVOID (POLYMERIZATION):** NA

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

EYES: Causes eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.

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

INGESTION: Expected to be a low ingestion hazard.

INHALATION: Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause Drowsiness and dizziness, headache, nausea and vomiting.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND

TOXICOLOGICAL CHARACTERISTICS: May cause drowsiness and dizziness, headache, nausea, vomiting. Irritation of eyes and mucous membranes. Exposed individuals may experience eye tearing, redness, and discomfort. Irritation of nose and throat. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY: Harmful if inhaled. Narcotic effects. May cause an allergic skin reaction.

Petroleum Distillates LD50 / LC50:

Inhalation LC50 Rat >5 mg/L (4Hr mist)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg



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Orange Terpenes LD50 / LC50:

Oral LD50 Rat >4400 mg/kg
Dermal LD50 Rabbit >5 mg/kg

Skin corrosion/irritation:	Causes skin irritation.
Serious eye damage/eye irritation:	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization:	Not a respiratory sensitizer.
Skin sensitization:	May cause an allergic skin reaction.
Carcinogenicity:	May cause cancer.
Specific target organ toxicity- Single exposure:	May cause drowsiness and dizziness.
Specific target organ toxicity- Repeated exposure:	Causes damage to organs through prolonged or repeated exposure.
Chronic effects:	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

SECTION 12: ECOLOGICAL INFORMATION

Petroleum Distillate Component Analysis- Ecotoxicity – Aquatic Life

Duration/Test/Species	Concentration/Conditions
96 hrs. LL50 Oncorhynchus mykiss	8.2 mg/L
48 hrs. EL50 Oncorhynchus mykiss	32 mg/L
96 hrs. EL50 Scenedesmus subspicatus	45 mg/L
Chronic Survival NOELR Aquatic Vertebrates	2.6 mg/L
Chronic Growth NOELR Aquatic Vertebrates	2.6 mg/L
Chronic Survival NOELR Daphnia magna	16 mg/L
Chronic Reproduction EL 50 Daphnia magna	10 mg/L
Chronic reproduction NOELR Daphnia magna	2.6 mg/L

Orange Terpenes Fish Toxicity: 0.619 – 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50

Persistence & Degradability Inherently biodegradable
Bioaccumulation Potential Not Available
Soil Mobility Not Available
Other Adverse Effects Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

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.



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SECTION 14: TRANSPORT INFORMATION

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

CONTAINER SIZES(S):	PAILS	PROPER SHIPPING NAME:	COMPOUND, CLEANING, LIQUID
HAZARD CLASS:	N/A		
ID NUMBER:	NONE		
PACKING GROUP:	NONE		
LABEL STATEMENT:	NONE		

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.

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	– Yes
Fire Hazard	– Yes
Pressure Hazard	– No
Reactivity Hazard	– No

SARA 302 extremely hazardous substance: Not listed.

SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting)

Safe Drinking Water Act (SDWA) Not regulated.

SECTION 16: OTHER INFORMATION

HMIS/NFPA Ratings:

Health =	2
Flammability =	2
Reactivity =	0
Other =	-
Protection =	-

REVISION DATE: 12/9/15

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.