



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: **MARC 108 CITATION STAINLESS STEEL & METAL POLISH**

SDS DATE: 12/21/18

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

RECOMMENDED USE: Stainless steel and metal polish and cleaner.

PREPARED BY: MARC

SECTION 2: HAZARDS IDENTIFICATION

Physical hazards Flammable aerosols Category 1

Health hazards Serious eye damage/eye irritation Category 2; Aspiration hazard Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes serious eye irritation.

Precautionary statement

Prevention 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.

Wash thoroughly after handling. Wear eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): Combustible.

Supplemental information None.



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Specific percentages and ingredients may be claimed as a trade secret.

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>%</u>
Distillates, Petroleum, Hydrotreated	64742-46-7	20-40
Middle		
Acetone	67-64-1	10-20
Butane	106-97-8	2.5-10
Propane	74-98-6	2.5-10
Naphtha (petroleum), Light Alkylate	64741-66-8	1-2.5
Other components below reportable levels.		40-60

SECTION 4: FIRST AID MEASURES

EYES: Rinse with water. Get medical attention if irritation develops and persists.

SKIN: Wash off with soap and water. Get medical attention if irritation develops and persists.

INGESTION: Rinse mouth. Get medical attention if symptoms occur.

INHALATION: Move to fresh air. Call a physician if symptoms develop or persist.

MOST IMPORTANT

SYMPTOMS/EFFECTS,

ACUTE AND DELAYED: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

INDICATION OF IMMEDIATE



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Provide general supportive measures and treat symptomatically. Keep victim under observation.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Symptoms may be delayed.

GENERAL INFORMATION: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5: FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Powder. Alcohol resistant foam. Carbon dioxide (CO₂).

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

SPECIFIC/UNUSUAL FIRE AND EXPLOSION HAZARDS ARISING FROM THE CHEMICAL: Contents under pressure. Pressurized container may explode when exposed to heat or flame.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

FIRE-FIGHTING EQUIPMENT/ INSTRUCTIONS: Move containers from fire area if you can do so without risk. 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 containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

HAZARDOUS DECOMPOSITION PRODUCTS: No hazardous decomposition products are known.

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. 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 of the SDS.

PROTECTIVE EQUIPMENT: Use personal protective devices as stated in Section 8.

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). 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. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see Section 13 of the SDS.

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.

SECTION 7: HANDLING AND STORAGE

HANDLING & STORAGE:

Precautions for safe handling: 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. Do not re-use empty containers. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

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

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerate 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. Refrigeration is recommended. Store away from incompatible materials (see Section 10 of the 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
Acetone (67-64-1)	PEL	2400 mg/m3 1000 ppm
Propane (74-98-6)	PEL	1800 ppm 1000 ppm

US. ACGIH: Threshold Limit Values

Components	Type	Value
Acetone (67-64-1)	STEL TWA	750 ppm 500 ppm
Butane (CAS 106-97-8)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (67-64-1)	TWA	590 mg/m3 250 ppm
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Propane (74-98-6)	TWA	1800 mg/m3 1000 ppm

Biological Limit Values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (67-64-1)	50 mg/1	Acetone	Urine	N/A

APPROPRIATE ENGINEERING CONTROLS: 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. Provide eyewash station.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

MECHANICAL: N/A

OTHER: Wear suitable protective clothing.

VENTILATION: N/A



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

- RESPIRATORY PROTECTION:** If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
- EYE/FACE PROTECTION:** Wear safety glasses with side shields (or goggles).
- SKIN PROTECTION/PROTECTIVE GLOVES:** Wear appropriate chemical resistant gloves.
- OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Wear appropriate chemical resistant clothing.
- 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- PHYSICAL STATE:	Gas.
FORM:	Aerosol
COLOR:	Not available.
ODOR:	Not available.
ODOR THRESHOLD:	Not available.
SOLUBILITY IN WATER:	Not available.
SPECIFIC GRAVITY:	0.504 estimated
MELTING/FREEZING POINT:	Not available.
BOILING POINT & RANGE:	542.48°F (283.6°C) estimated
FLASH POINT/METHOD USED:	-156.0°F (-104.4°C) Propellant estimated
EVAPORATION RATE:	Not available.
FLAMMABILITY (solid, gas): UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	LOWER (1%): 1% estimated UPPER (1%): 7.8% estimated
VAPOR PRESSURE (mmHg):	20 - 40 (PSIG) @ 70°F. estimated
VAPOR DENSITY (AIR = 1):	Not available.
PARTITION COEFFICIENT, n-OCTANOL/WATER:	Not available.
AUTO-IGNITION TEMPERATURE:	834.8°F (466°C) estimated
DECOMPOSITION TEMPERATURE:	Not available.
VISCOSITY:	Not available.
DENSITY:	0.50 g/cm ³ estimated

SECTION 10: STABILITY AND REACTIVITY

- REACTIVITY/STABILITY:** The product is stable and non-reactive under normal conditions of use, storage and transport.
- CONDITIONS TO AVOID:** Avoid temperatures exceeding the flash point, and contact with incompatible materials.
- INCOMPATIBILITY (MATERIAL TO AVOID):** Acids. Strong oxidizing agents. Nitrates, fluorine and chlorine.
- HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** No hazardous decomposition products are known.
- HAZARDOUS POLYMERIZATION:** Hazardous polymerization does not occur.
- CONDITIONS TO AVOID (POLYMERIZATION):** None known.

SECTION 11: TOXICOLOGICAL INFORMATION

- LIKELY ROUTES OF EXPOSURE:** Skin contact. Eye contact. Inhalation. Ingestion.
- EYES:** Causes serious eye irritation.
- SKIN:** No adverse effects due to skin contact are expected.



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

INGESTION: Expected to be a low ingestion hazard.

INHALATION: Prolonged inhalation may be harmful.

ACUTE HEALTH HAZARDS: N/A

**SYMPTOMS RELATED TO THE
PHYSICAL, CHEMICAL AND**

TOXICOLOGICAL CHARACTERISTICS: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

PRODUCT	SPECIES	TEST RESULTS
11 OZ. CITATION M-108 LB. 12 PK (CAS MIXTURE)		
ACUTE <i>Dermal</i> LD50	Guinea Pig	60669.9336 mg/kg, 24 Hours estimated 76.7974 ml/kg, 24 Hours estimated
	Rabbit	6885.8418 mg/kg, 24 Hours estimated 76.7974 ml/kg, 24 Hours estimated
<i>Inhalation</i> LC100 LC50	Cat	750% estimated
	Mouse	10308.333mg/l, 120 Minutes estimated 433.3333%, 120 Minutes estimated 133.3333 mm/l, 2 Hours estimated
Oral LD50	Rat	28983.5273 mg/m3, 4 Hours estimated 440.2205 mg/l, 3 Hours estimated 344.5459 mg/l/4h estimated 6.941 mg/l, 4 Hours estimated
	Rat	41797.2383 mg/kg estimated 17.9549 m/kg estimated

COMPONENTS	SPECIES	TEST RESULTS
Acetone (CAS 67-64-1)		
ACUTE <i>Dermal</i> LD50	Guinea Pig	>7426 mg/kg, 24 Hours
	Rabbit	>9.4 ml/kg, 24 Hours >7426 mg/kg, 24 Hours >9.4 ml/kg, 24 Hours
<i>Inhalation</i> LC50	Rat	55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l
	Rat	5800 mg/kg 2.2 ml/kg
Butane(CAS 106-97-8)		
ACUTE <i>Inhalation</i>		



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l

COMPONENTS	SPECIES	TEST RESULTS
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Distillates, Petroleum, Hydrotreated Middle (CAS 64742-46-7)

ACUTE

Dermal

LD50 Rabbit >2000 mg/kg, 24 Hours

Inhalation

LC50 Rat 7640 mg/m³, 4 Hours
1.72 mg/l, 4 Hours

Naphtha (petroleum), Light Alkylate (CAS 64741-66-8)

ACUTE

Dermal

LD50 Rabbit >1900 mg/kg, 24 Hours

Inhalation

LC50 Rat >5020 mg/m³, 4 Hours
>4980 mg/m³
>4980 mg/m³, 4 Hours
>4.96 mg/l, 4 Hours

Oral

LD50 Rat 4820 mg/kg

Propane (CAS 74-98-6)

ACUTE

Inhalation

LC50 Mouse 1237 mg/l, 120 Minutes
52%, 120 Minutes
1355 mg/l
Rat 658 mg/l4h

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

SKIN CORROSION/IRRITATION: Not applicable.

**SERIOUS EYE DAMAGE/
EYE IRRITATION:** Causes serious eye irritation.

**RESPIRATORY OR SKIN SENSITIZATION/
RESPIRATORY SENSITIZATION:** Not available.

SKIN SENSITIZATION: This product is not expected to cause skin sensitization.

GERM CELL MUTAGENICITY: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

CARCINOGENICITY:
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 classified.

**SPECIFIC TARGET ORGAN TOXICITY-
REPEATED EXPOSURE:** Not classified.

ASPIRATION HAZARD: Not likely, due to the form of the product.

CHRONIC EFFECTS: Prolonged inhalation may be harmful.



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Harmful to aquatic life with long lasting effects.

PRODUCT	SPECIES	TEST RESULTS
11 OZ. CITATION M-108 LB. 12 PK (CAS MIXTURE)		

Aquatic

Crustacea	EC50	Daphnia	42138.8906 mg/l, 48 Hours estimated
Fish	LC50	Fish	68920.6641 mg/l, 96 Hours estimated

COMPONENTS	SPECIES	TEST RESULTS
Acetone (CAS 67-64-1)		

Aquatic

Crustacea	EC50	Water flea (Daphnia magna)	21.6-23.9 mg/l, 48 Hours
Fish	LC50	Rainbow trout, Donaldson trout (Oncorhynchus mykiss)	4740-6330 mg/l, 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-OCTANE/water (log kow)

Acetone	-0.24
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

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.

LOCAL DISPOSAL REGULATION: Dispose in accordance with all applicable regulations.

HAZARDOUS WASTE CODES: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA HAZARDOUS WASTE U LIST: Reference

Acetone (CAS 67-64-1)	U002
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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.



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

SECTION 14: TRANSPORT INFORMATION

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

CONTAINER SIZES(S): Aerosol Can 11 oz.
PROPER SHIPPING NAME: CLEANING COMPOUND
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENT: Limited Quantity

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 SECTION 12 (b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

CERCLA HAZARDOUS SUBSTANCE LIST (40 CFR 302.4)

Acetone (CAS 67-64-1) 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 – No
Reactivity Hazard – No

SARA 302 Extremely hazardous substance: Not listed.

SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting): Not regulated.

OTHER FEDERAL REGULATIONS

CLEAN AIR ACT (CAA) SECTION 112 HAZARDOUS AIR POLLUTANTS (HAPs) LIST: Not regulated.

CLEAN AIR ACT (CAA) 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.

DRUG ENFORCEMENT ADMINISTRATION (DEA). List 1 & 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

DRUG ENFORCEMENT ADMINISTRATION (DEA). List 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35%WV

DEA Exempt Chemical Mixtures Code Number



SAFETY DATA SHEET

Product: MARC 108 CITATION STAINLESS STEEL & METAL POLISH
Form R04132

Acetone (CAS 67-64-1) 6532

STATE REGULATIONS:

US. California Proposition 65:

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<u>Country(s) or region</u>	<u>Inventory name</u>	<u>On Inventory (yes/no)*</u>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

HMIS/NFPA Ratings: Health = 1
 Flammability = 3
 Reactivity = 0
 Other = -
 Protection = B

REVISION DATE: 12/21/18

DISCLAIMER: MARC 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. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.