



SAFETY DATA SHEET

Product: MARC 164 PROTECT

Form R04132

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: **MARC 164 PROTECT**

SDS DATE: 01/09/2019

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: Detailer and protectant

PREPARED BY: MARC

SECTION 2: HAZARDS IDENTIFICATION



CLASSIFICATION: Flammable aerosols category 1.

SIGNAL WORD AND HAZARD STATEMENTS: **DANGER:** EXTREMELY FLAMMABLE AEROSOL. **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. Do not expose to temperatures exceeding 50°C/122°. If exposed or concerned, get medical attention. Protect from sunlight. Dispose of contents and containers in accordance with federal, state and local regulations.

ENVIRONMENTAL HAZARDS: Hazardous to aquatic environments, acute and long-term – category 3.A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

INGREDIENT	CAS NO.	%
1,2,3-Propanetriol	56-81-5	2.5 -10
Butane	106-97-8	2.5 -10
Polydimethylsiloxane	63148-62-9	2.5 -10
Propane	74-98-6	2.5-10
Other components below reportable levels.		80-90

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: In the unlikely event of swallowing, contact a physician or poison control center.

INHALATION: If symptoms develop, move victim to fresh air. Get medical attention if symptoms develop or persist.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:

Direct contact with eyes may cause temporary irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

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

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

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: Water.



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UNSUITABLE EXTINGUISHING MEDIA:	None known.
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. 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.
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. Contact local authorities in case of spillage to drain/aquatic environment. 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 prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
OTHER PRECAUTIONS:	KEEP OUT OF REACH OF CHILDREN!! CAREFULLY READ ENTIRE LABEL BEFORE USE!
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:	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. Store away from incompatible materials (see Section 10 of the SDS). Level 1 Aerosol (NFPA 30B)



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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	Form
1,2,3-Propanetriol (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Propane (74-98-6)	PEL	1800 mg/m3 1000 ppm	

US. ACGIH: Threshold Limit Values

Components	Type	Value	Form
1,2,3-Propanetriol (CAS 56-81-5)	TWA	10 mg/m3	Mist.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Propane (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: 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.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

MECHANICAL: N/A

OTHER: Wear suitable protective clothing.

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.



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pH:	Not available.
SOLUBILITY IN WATER:	Not available.
SPECIFIC GRAVITY:	0.901 estimated
MELTING/FREEZING POINT:	Not available.
BOILING POINT & RANGE:	Not available.
FLASH POINT/METHOD USED:	-156.00°F (-104.44°C) Propellant estimated
EVAPORATION RATE:	Not available.
FLAMMABILITY (solid, gas):	Not available.
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	LOWER: Not available. UPPER: Not available.
VAPOR PRESSURE (mmHg):	40.77 (PSIG) @ 70°F. estimated
VAPOR DENSITY (AIR = 1):	Not available.
PARTITION COEFFICIENT, n-OCTANOL/WATER:	Not available.
AUTO-IGNITION TEMPERATURE:	Not available.
DECOMPOSITION TEMPERATURE:	Not available.
VISCOSITY:	Not available.
DENSITY:	Not available.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY/STABILITY:	This product is stable and non-reactive under normal conditions of use, storage and transport.
CHEMICAL STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	Avoid temperatures exceeding the flash point, and contact with incompatible materials.
INCOMPATIBILITY (MATERIAL TO AVOID):	Eliminate all ignition sources (no smoking, flares, sparks, or flames) and combustibles (wood, paper, oil, etc.)
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:	Direct contact with eyes may cause temporary irritation.
SKIN:	Not available.
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:	Direct contact with eyes may cause temporary irritation.
CHRONIC HEALTH HAZARDS:	N/A
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	N/A

INFORMATION ON TOXICOLOGICAL EFFECTS



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ACUTE TOXICITY

PRODUCT	SPECIES	TEST RESULTS
PROTECT M-164		
ACUTE <i>Dermal</i> LD50	Rat	36363.6367 mg/kg, estimated
<i>Inhalation</i> LC50	Mouse	12033.0557 mg/l, 2 Hours, estimated
	Rat	56829.6133 mg/l, 15 minutes, estimated 8034.188 mg/l/4h, estimated 7857.1431 mg/l, 4 Hours, estimated
Oral LD50	Dog	3064.5161g/kg, estimated
	Guinea pig	2967.7419 g/kg, estimated
	Mouse	4345.4546 g/kg, estimated
	Rabbit	3272.7273 g/kg, estimated
	Rat	5454.5454 g/kg, estimated
Other LD50	Rat	85218.7188 mg/kg, estimated

COMPONENTS	SPECIES	TEST RESULTS
Butane(CAS 106-97-8) ACUTE <i>Inhalation</i> LC50	Mouse Rat	680 mg/l, 2 Hours 658 mg/l, 4 Hours
Propane (CAS 74-98-6) ACUTE <i>Inhalation</i> LC50	Rat	>1442.847 mg/l, 15 Minutes 658 mg/l/4h

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

SKIN CORROSION/IRRITATION: Prolonged skin contact may cause temporary irritation.

**SERIOUS EYE DAMAGE/
EYE IRRITATION:** Direct contact with eyes may cause temporary irritation.

RESPIRATORY OR SKIN 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: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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.



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SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

PRODUCT	SPECIES	TEST RESULTS
PROTECT M-164		
Fish LC50	Fish	155.7744 mg/l, 96 Hours estimated

COMPONENTS	SPECIES	TEST RESULTS
1,2,3-Propanetriol (CAS 56-81-5)		
Fish LC50	Fish	54162 mg/L, 96 Hours

Aquatic

Fish LC50	Rainbow trout, Donaldson trout (Oncorhynchus mykiss)	51000-57000 mg/l, 96 Hours
Polydimethylsiloxane (CAS 63148-62-9)		
Fish LC50	Channel catfish (Ictalurus punctatus)	2.36-4.15 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)

1,2,3-Propanetriol	-1.76
Propane	2.36
Butane	2.89

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.

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: Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION 14: TRANSPORT INFORMATION

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

CONTAINER SIZES(S): Aerosol Can 14 oz.
PROPER SHIPPING NAME: CLEANING COMPOUND
HAZARD CLASS: N/A



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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.

TSCA 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.

U.S. OSHA SPECIFICALLY REGULATED SUBSTANCES (29 CFR 1910.1001-1050): Not listed.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA):

Hazard categories: Immediate Hazard – No
Delayed Hazard – No
Fire Hazard – Yes
Pressure Hazard – Yes
Reactivity Hazard – No

SARA 302 Extremely hazardous substance: No

SARA 311/312 Hazardous chemical: No

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 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number: Not listed.

FOOD AND DRUG ADMINISTRATION (FDA): Not regulated.

US STATE REGULATIONS:

US. New Jersey Worker and Community right-to-Know Act:

Butane (CAS 106-97-8)	500 lbs
Propane (CAS 74-98-6)	500 lbs

US. Pennsylvania RTK – Hazardous Substances:

1,2,3-Propanetriol (CAS 56-81-5)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

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.



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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: 01/09/2019

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.