



SAFETY DATA SHEET

Product: MARC 161 SILICONE SPRAY DRY LUBRICANT

Form R04132

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: MARC 161 SILICONE SPRAY DRY LUBRICANT

SDS DATE: 08/9/16

SUPPLIER: Mid-American Research Chemical Corp.

ADDRESS: P. O. Box 927 Columbus, NE 68602-0927

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EMERGENCY PHONE: InfoTrac 1-800-535-5053

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RECOMMENDED USE: Food Grade Silicone.

PREPARED BY: MARC

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Specific target organ toxicity-single exposure (narcotic effects), aspiration hazard, skin irritation, eye irritation, aerosol.

SIGNAL WORD AND PRECAUTIONARY STATEMENTS: DANGER: Extremely flammable aerosol. Pressurized container may burst if heated. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.

PREVENTION/RESPONSE/STORAGE: Avoid breathing gas, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear eye and face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Store locked up in a well-ventilated area. Protect from sunlight. Do not expose to temperatures exceeding 122°F/50°C. Dispose of contents and container in accordance with all local, regional and national regulations.



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>% By Wt.</u>
Acetone	67-64-1	29% - 48%
Butane	106-97-8	16% - 27%
n-Heptane	142-82-5	11% - 27%
Propane	74-98-6	5% - 13%
Isobutane	75-28-5	5% - 12%
Silicone	63148-62-9	2% - 5%

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

SECTION 4: FIRST AID MEASURES

EYES: Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the

face. If eye irritation persists, get medical advice/attention.

SKIN: Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Gently blot or brush away excess product. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. Call a POISON CENTER/doctor if you feel unwell. Store contaminated clothing under water and wash before reuse or discard.



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INGESTION: Rinse mouth. **DO NOT INDUCE VOMITING!** Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

INHALATION: Remove source of exposure or move person to fresh air and keep at rest in a position comfortable for breathing. If exposed/feel unwell/concerned, call a POISON CENTER or doctor/physician.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water, fog, dry chemical, or carbon dioxide. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

UNSUITABLE EXTINGUISHING MEDIA: Water may be ineffective but can be used to cool containers exposed to heat or flame.

FIRE-FIGHTING PROCEDURES/EQUIPMENT: Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Care should always be exercised in dust/mist areas. Firefighters should wear positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved) and full turnout gear.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Aerosol cans may rupture when heated. Heated cans may burst.

HAZARDOUS DECOMPOSITION PRODUCTS: In fire, will decompose to carbon dioxide, carbon monoxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Flammable/combustible material. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stay upwind; keep out of low areas. Immediately turn off or isolate any source of ignition. Keep unnecessary people away. Isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Use absorbent sweeping compound to soak up material and put into suitable container for proper disposal.

PERSONAL PRECAUTIONS: Use explosion proof equipment. Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Wear positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SDBA (NIOSH approved). (See Section 8 Exposure Controls, Personal Protection.)

ENVIRONMENTAL PRECAUTIONS: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Keep away from children. Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Removed contaminated clothing and protective clothing equipment before entering eating areas.

OTHER PRECAUTIONS: **KEEP OUT OF REACH OF CHILDREN! FOR INDUSTRIAL AND INSTITUTIONAL USE ONLY! FOR USE BY TRAINED PERSONNEL ONLY!**

STORAGE: Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and incompatibilities. Store in approved containers and protect against physical damage. Keep



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containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous.

Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them. Ground all structures, transfer containers and equipment to conform to the national electrical code. Use procedures that prevent static electrical sparks. Static electricity may accumulate and create a fire hazard. Store at temperatures below 120°F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS/

VENTILATION:

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

RESPIRATORY PROTECTION:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapors.

EYE/FACE PROTECTION:

Chemical goggles, safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

SKIN PROTECTION/PROTECTIVE GLOVES:

Wear gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Wear long sleeved shirt, long pants and other protective clothing as required to minimize skin contact. Chemical-resistant clothing is recommended to avoid prolonged contact.

Eyewash stations and showers should be available in areas where this material is used and stored.

WORK HYGIENIC PRACTICES:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

CHEMICAL NAME	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables- (Z1,2,3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
ACETONE	1000	2400			1			250	590			
BUTANE								800	1900			
N-HEPTANE	500	2000			1			85	350			
ISOBUTANE								800	1900			
PROPANE	1000	1800			1			1000	1800			

CHEMICAL NAME	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
ACETONE	500	1188	750	1782
BUTANE	1000			
N-HEPTANE	400	1640	500	2050
ISOBUTANE	1000			
PROPANE	See Appendix F. Minimal Oxygen Content			



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	
PHYSICAL STATE:	Aerosol spray liquid.
COLOR:	Clear.
ODOR:	Mild solvent.
ODOR THRESHOLD:	N.A.
pH:	N.A.
MELTING/FREEZING POINT:	N.A.
LOW BOILING POINT:	1°F
HIGH BOILING POINT:	157°F
FLASH POINT/METHOD USED:	0°F
EVAPORATION RATE:	Slower than ether.
FLAMMABILITY (solid, gas):	Flashpoint below 73°F.
FLAMMABILITY EXPLOSIVE (%):	LOWER: 1.9 UPPER: 8.5
VAPOR PRESSURE (mmHg):	N.A.
VAPOR DENSITY (AIR = 1):	Slower than ether.
DENSITY:	5.93 lb./gal.
DENSITY VOC:	3.50 lb./gal.
%VOC:	59%
VOC ACTUAL:	3.5 lb./gal.
VOC ACTUAL:	419 g/l
VOC REGULATORY:	3.5 lb./gal.
VOC REGULATORY:	419 g/l
SPECIFIC GRAVITY (H₂O = 1):	0.71
SOLUBILITY IN WATER:	Nil
PARTITION COEFFICIENT, n-OCTANOL/WATER:	N.A.
AUTO-IGNITION TEMPERATURE:	N.A.
DECOMPOSITION PT: 0	
VISCOSITY:	N.A.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Stable.
CHEMICAL STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	High temperatures.
INCOMPATIBILITY (MATERIAL TO AVOID):	None known.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	In fire, will decompose to carbon dioxide, carbon monoxide.
HAZARDOUS POLYMERIZATION:	Will not occur.
CONDITIONS TO AVOID (POLYMERIZATION):	NA

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

SERIOUS EYE DAMAGE/IRRITATION:	Causes serious eye irritation. Over exposure will cause redness and burning sensation.
SKIN CORROSION/IRRITATION:	Overexposure will cause defatting of skin. Causes skin irritation.
INGESTION/ASPIRATION HAZARD:	May be fatal if swallowed and enters airways.
INHALATION:	Effects of overexposure include irritation of respiratory tract, headache, dizziness, nausea, and loss of coordination. Extreme overexposure may result in unconsciousness and possibly death.
CARCINOGENICITY:	No data available.



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GERM CELL MUTAGENICITY: No data available.
REPRODUCTIVE TOXICITY: Suspected of damaging fertility or the unborn child.

RESPIRATORY/SKIN SENSITIZATION: No data available.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: May cause drowsiness or dizziness.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: May cause damage to organs through prolonged or repeated exposure.

ACUTE TOXICITY: See Inhalation above.

CHRONIC HEALTH HAZARDS: May cause damage to organs through prolonged or repeated exposure.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: ACETONE (CAS 67-64-1) - The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Overexposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

CAS 67-64-1 ACETONE

LC50 (male rat): 30000 ppm (4-hour exposure); cited as 71000 mg/m³ (4-hour exposure) (29)
LC50 (male mouse): 18600 ppm (4-hour exposure); cited as 44000 mg/m³ (4-hour exposure) (29)

LD50 (oral, female rat): 5800 mg/kg (24)
LD50 (oral, mature rat): 6700 mg/kg (cited as 8.5 mL/kg) (31)
LD50 (oral, newborn rat): 1750 mg/kg (cited as 2.2 mL/kg) (31)
LD50 (oral, mouse): 3000 mg/kg (32, unconfirmed)
LD50 (dermal, rabbit): Greater than 16000 mg/kg (cited as 20 mL/kg) (30)

CAS 142-82-5 N-HEPTANE

LC50 (rat): approximately 25000 ppm (4-hour exposure); cited as 103 mg/m³ (4-hour exposure)
LD50 (oral, rat): Greater than 15000 mg/kg

CAS 75-28-5 ISOBUTANE

LC50 (mouse, inhalation): 520,000 ppm (52%); 2-hour exposure. (4)

CAS 106-97-8 BUTANE

LC50 (mouse): 202000 ppm (481000 mg/m³) (4-hour exposure); cited as 680 mg/L (2-hour exposure) (9)
LC50 (rat): 276000 ppm (658000 mg/m³) (4-hour exposure); cited as 658 mg/L (4-hour exposure) (9)

POTENTIAL HEALTH EFFECTS – MISCELLANEOUS

CAS 67-64-1 ACETONE

The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Over exposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

CAS 142-82-5 N-HEPTANE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, respiratory system, skin. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.



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Mobility in soil: No data available.

Other adverse effects: No data available.

Bioaccumulative potential: 67-64-1 ACETONE
Does not bioaccumulate.

Persistence and Degradability: 67-64-1 ACETONE
91% readily biodegradable, Method: OECD Test Guideline 301B

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14: TRANSPORT INFORMATION

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

CONTAINER SIZES(S): Aerosol Can (9.25 oz.)
PROPER SHIPPING NAME: LUBRICATING OIL
HAZARD CLASS: N/A
ID NUMBER: None
PACKING GROUP: None
LABEL STATEMENT: LTD QTY

SECTION 15: REGULATORY INFORMATION

CAS	CHEMICAL NAME	% BY WEIGHT	REGULATION LIST
67-64-1	ACETONE	29% - 48%	CERCLA, SARA 312, TSCA, RCRA, ACGIH, OSHA
74-98-6	PROPANE	5% - 12%	SARA 312, VOC, TSCA, ACGIH, OSHA
75-28-5	ISOBUTANE	5% - 13%	SARA 312, VOC, TSCA, ACGIH
106-97-8	BUTANE	16% - 27%	SARA 312, VOC, TSCA, ACGIH
142-82-5	N-HEPTANE	11% - 27%	CERCLA, HAPS, SARA 312, SARA 313, VOC, TSCA, ACGIH, OSHA
63148-62-9	SILICONE	2% - 5%	SARA 312, TSCA

SECTION 16: OTHER INFORMATION

HMIS/NFPA Ratings: Health = 3
Flammability = 2
Reactivity = 0
Other = -
Protection = A

REVISION DATE: 03/30/15

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.