SAFETY DATA SHEET

Product: MARC 160 PENETRATING RED GREASE

Form R04132

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: MARC 160 PENETRATING RED GREASE

SDS DATE: 12/1/17

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

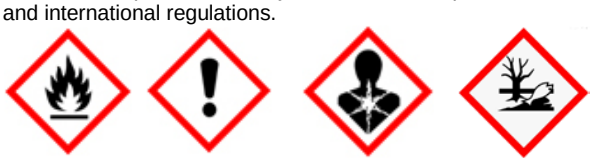
RECOMMENDED USE: Red Grease.

PREPARED BY: MARC

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3; Specific Target Organ Toxicity - Repeated Exposure - Category 2; Aspiration Hazard - Category 1; Skin Irritation - Category 2; Aerosol - Category 1;Eye Irritation - Category 2A Reproductive Toxicity - Category 2; Chronic aquatic toxicity - Category 2; Acute aquatic toxicity - Category 2

SIGNAL WORD AND PRECAUTIONARY STATEMENTS: DANGER. Extremely flammable aerosol, Pressurized container may burst if heated. Hazardous Statements - Health: May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. Hazardous Statements - Environmental: Toxic to aquatic life with long lasting effects. Precautionary Statements - General: If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Precautionary Statements - Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear eye protection/face protection. Do not handle until all safety precautions have been read and understood. Avoid release to the environment. 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. Precautionary Statements - Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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. IF exposed or concerned: Get medical advice/attention. Precautionary Statements - Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Store locked up. Precautionary Statements - Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	PERCENT
Hexane	110-54-3	11% - 27%
Butane	106-97-8	9% - 22%
Acetone	67-64-1	8% - 21%
Isoparaffinic Petroleum Distillate	64742-47-8	6% - 16%
Propane	74-98-6	4% – 10%
Isobutane	75-28-5	4% – 10%
Silicone	63148-62-9	0.7% - 1.4%

Specific percentages may be claimed 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 the 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 or attention immediately.

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

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

Never give anything by mouth to an unconscious or convulsing victim. Keep person warm and quiet.

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

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

NOTES TO PHYSICIAN: N/A

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.

SPECIAL FIRE FIGHTING PROCEDURES/ EQUIPMENT: Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear. Care should always be exercised in dust/mist areas. 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. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. (See Section 13 DISPOSAL CONSIDERATIONS).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Contents under pressure. Keep away from ignition sources and open flame. 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. Use absorbent sweeping compound to soak up material and put into suitable container for proper disposal.

PERSONAL PRECAUTIONS/ PROTECTIVE EQUIPMENT: Use personal protection recommended in Section 8. Positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

METHODS AND MATERIALS FOR CONTAINMENT: Same as Emergency Procedures.

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

GENERAL HANDLING/ STORAGE: Do not get into eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. 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 containers securely sealed when not n use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container 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.

OTHER PRECAUTIONS: **KEEP OUT OF REACH OF CHILDREN!! FOR INDUSTRIAL AND INSTITUTIONAL USE ONLY. FOR USE BY TRAINED PERSONNEL ONLY. CAREFULLY READ ENTIRE LABEL BEFORE USE!**

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS/ VENTILATION: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

MECHANICAL: N/A

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.

When spraying more than one half can continuously or more than one can consecutively, use NIOSH approved respirator.

EYE 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 suitable gloves,. Use of 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. Avoid unnecessary skin contact.

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: Handle according to established industrial hygiene and safety practices. Don't eat, drink or smoke in work area. Wash hands after handling and before eating, drinking or smoking.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables Z 1,2,3	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			
HEXANE	500	1800			1			50	180			
ISOBUTANE								800	1900			
ISOPARAFFINIC PETROLEUM DISTILLATE	500	2000			1							
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			
HEXANE	50	176		
ISOBUTANE	1000			
ISOPARAFFINIC PETROLEUM DISTILLATE				

PROPANE	See Appendix F: Minimal Oxygen Content			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DENSITY: 6.17lb/gal
DENSITY VOC: 3.48 lb/gal
%VOC: 49.3%
VOC Actual: 3.49 lb/gal
VOC Actual: 417.7 g/l
VOC Regulatory: 3.49 lb/gal
VOC Regulatory: 417.7 g/l

APPEARANCE- Red Gel Grease
COLOR/FRAGRANCE: Red, Solvent.
PHYSICAL STATE: Sprays as thin, penetrating liquid-becomes thick red grease.
ODOR THRESHOLD: N/A
ODOR DESCRIPTION: N/A
pH: N/A
SOLUBILITY IN WATER: Nil
SPECIFIC GRAVITY: (H20 = 1) 0.75
MELTING/FREEZING POINT: N/A
HIGH BOILING POINT: 601°F
LOW BOILING POINT: 0°F
FLASH POINT (METHOD USED: TCC) 51°F. T.O.C.
FLAMMABILITY: Flashpoint below 73°F
LOWER EXPLOSION LEVEL: 1
UPPER EXPLOSION LEVEL: 9.5
EVAPORATION RATE: Slower than ether.
VAPOR PRESSURE (mmHg): N/A
VAPOR DENSITY: Slower than ether.
PARTITION COEFFICIENT, n-OCTANOL/WATER: N/A
AUTO-IGNITION TEMPERATURE: N/A
DECOMPOSITION TEMPERATURE: 0
VISCOSITY: N/A

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS OF REACTIVITY:

STABILITY: Stable.

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/REACTIONS: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

SERIOUS EYE DAMAGE/IRRITATION: Eye irritant. Overexposure will cause redness and burning sensation. Causes serious eye irritation.

SKIN CORROSION/IRRITATION: Skin irritant. Overexposure will cause defatting of skin.

INGESTION: Aspiration hazard. May be fatal if swallowed and enters airways.

INHALATION: Acute Toxicity. Effect of overexposure include irritation of respiratory tract, headache dizziness, nausea, and loss of coordination. Extreme overexposure may result in unconsciousness and possibly death.

CARCINOGENICITY: May cause cancer.

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.

0000067-64-1 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)
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)

0000110-54-3 HEXANE

LC50 (male rat):	38500 ppm (4-hour exposure): cited as 77000 ppm (271040 mg/m3 (1-hour exposure) (15)
LC50 (rat):	48000 ppm (4-hour exposure); (16)
LC50 (rat):	73680 ppm (260480 mg/m3) (n-hexane and isomers) (1.3)
LD50 (oral, 14-day old rat):	15840 mg/kg (3)
LD50 (oral, young rat):	32340 mg/kg (3)
LD50 (oral, adult rat):	28700 mg/kg (3,16)

0000075-28-5 ISOBUTANE

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

0000106-97-8 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

0000067-64-1 ACETONE

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.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:	No data available. Toxic to aquatic life with long lasting effects.
PERSISTENCE AND DEGRADABILITY:	No data available.
BIOACCUMULATIVE POTENTIAL:	No data available.
MOBILITY IN SOIL:	No data available.
OTHER ADVERSE EFFECTS:	No data available.

BIOACCUMULATIVE POTENTIAL:

0000067-64-1 ACETONE
Does not bioaccumulate.

0064742-47-8 **ISOPARAFFINIC PETROLEUM DISTILLATE**
Contains constituents with the potential to bio accumulate.

PERSISTENCE AND DEGRADABILITY:

0000067-64-1 **ACETONE**
91% readily biodegradable. Method: OECD Test Guideline 301B.

0064742-47-8 **ISOPARAFFINIC PETROLEUM DISTILLATE**
Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

MOBILITY IN SOIL:

0064742-47-8 **ISOPARAFFINIC PETROLEUM DISTILLATE**
Floats on water. Contains volatile constituents. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL INSTRUCTIONS: **U**nder 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

CONTAINER SIZES(S): Aerosol Can
PROPER SHIPPING NAME: CONSUMER COMMODITY, ORM-D or DEODORANT, LIMITED QUANTITY
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENT: LIMITED QUANTITY

SECTION 15: REGULATORY INFORMATION

CAS	CHEMICAL NAME	% BY WEIGHT	REGULATION LIST
0000067-64-1	ACETONE	8%-18%	CERCLA, SARA 312, TSCA, RCRA, ACGIH, OSHA
0000074-98-6	PROPANE	4%-9%	SARA 312, VOC, TSCA, ACGIH, OSHA
0000075-28-5	ISOBUTANE	4% - 8%	SARA 312, VOC, TSCA, ACGIH
0000106-97-8	BUTANE	9%-19%	SARA 312, VOC, TSCA, ACGIH
0000110-54-3	HEXANE	11%-23%	CERCLA, HAPS, SARA 312, VOC, TSCA, ACGIH, OSHA
0063148-62-9	SILICONE	0.1%-1.9%	SARA 312, TSCA
0064742-47-8	ISOPARAFFINIC PETROLEUM DISTILLATE	6%-14%	SARA 312, VOC, TSCA, OSHA

FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT): See above.
CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): See above**.**
SARA 311/312 HAZARD CATEGORIES: See above.
SARA 313 REPORTABLE INGREDIENTS: None.
STATE REGULATIONS: None

SECTION 16: OTHER INFORMATION

HMIS/NFPA Ratings: Health = 1; **Flammability = 3; Reactivity = 0; Other = - ; Protection = B**; **REVISION DATE: 12/01/2017**

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.