



## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Red Max EP 100 (#00, 0, 1, 2)  
**PRODUCT IDENTIFIER CODE(S):** 109343, 109393, 109394, 109398  
**PRODUCT RECOMMENDED/INTENDED USE:** Lubricant  
**MANUFACTURER/SUPPLIER:** Royal Oil Company  
**ADDRESS:** 500 Airport Drive, Mansfield, TX 76063  
**GENERAL INFORMATION:** 817-332-1161  
**24 HR. EMERGENCY PHONE NUMBER:** CHEMTREC 1-800-424-9300

### SECTION 2 HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Weight %
Materials defined as complex substances (petroleum)*	N/A	80-95
Octadecanoic acid, 12-Hydroxy	106-14-9	2.0-10.0
Calcium hydroxide	1305-62-0	0.1-2.0
Petroleum process oil, <3.0% DMSO extractable material	64742-52-5	1.0-2.0
Antimony dialkyldithiocarbamate	NJTSR No. 800983-5015P	1.0-2.0
Other non-hazardous components	N/A	0.1-5.0

\* No hazardous substance(s) or complex substance(s) required for disclosure

### SECTION 4 FIRST AID MEASURES

**PRINCIPAL ROUTE(S) OF EXPOSURE:** Skin

**EFFECTS OF EXPOSURE (ACUTE AND CHRONIC):** Excessive exposure may result in mild skin or eye irritation. High-pressure injection under skin may cause serious damage. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury. Ingestion may cause gastrointestinal irritation, nausea and/or diarrhea.

**IF IN EYES:** Flush eyes with water for at least 15 minutes or until irritation subsides.

**IF SKIN IRRITATION OCCURS:** Wash skin thoroughly with soap and water. If injected under the skin get immediate medical attention. Wash contaminated clothing before reuse.

**IF SWALLOWED:** Do NOT induce vomiting. Get immediate medical attention.

**IF INHALED:** No inhalation hazards are expected from this material under normal conditions of use and storage.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** None known.

**NOTES TO PHYSICIAN:** None.

### SECTION 5 FIRE FIGHTING MEASURES

**NFPA Hazard ID:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS Hazard ID:** Health: 0 Flammability: 1 Reactivity: 0

**SUITABLE EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) for extinction.

**UNSUITABLE EXTINGUISHING MEDIA:** Straight Streams of Water

**FIREFIGHTING PROCEDURES:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**PROTECTION OF FIRE FIGHTERS:** Self-contained breathing apparatus (SCBA) and full protective gear.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Do not store or mix with strong oxidants.

**COMBUSTION PRODUCTS:** Carbon monoxide, carbon dioxide, fumes and smoke may be released upon combustion and/or thermal decomposition.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PROTECTION:** Wear appropriate personal protective equipment when cleaning up spills (See Section 8). Keep unnecessary people away; isolate hazard area and deny entry.

**PROCEDURES:** Clean up mechanically. Do not flush to sewer or waterways. Prevent release into the environment. Refer to section 15 for spill/release reporting information.

## SECTION 7 HANDLING AND STORAGE

**HANDLING:** Avoid eye contact and prolonged or repeated exposure to skin. Exercise ordinary care and observe good personal hygiene practices when handling this product.

**STORAGE:** Keep container tightly closed when not in use. Store away from strong oxidizers and at temperatures not exceeding 140°F (60°C).

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** No special requirements under ordinary conditions of use and with adequate ventilation.

**PERSONAL PROTECTIVE EQUIPMENT:** Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**EYE/FACE PROTECTION:** If contact is likely, safety glasses with side shields or safety goggles are recommended.

**SKIN PROTECTION:** Any specific glove or protective clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**RESPIRATORY PROTECTION:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: No special requirements under ordinary conditions of use and with adequate ventilation. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**SPECIFIC HYGIENE MEASURES:** 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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

**ENVIRONMENTAL CONTROLS:** Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

**OCCUPATIONAL EXPOSURE LIMITS:**

Component	PEL:	TLV:
Materials defined as complex substances (petroleum)*	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Octadecanoic acid, 12-Hydroxy	Not established	Not established
Calcium hydroxide	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Petroleum process oil, <3.0% DMSO extractable material	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Antimony dialkyldithiocarbamate	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE (Color and physical state):** Red grease

**ODOR:** Mineral oil odor

**ODOR THRESHOLD:** Not determined

**pH:** Not determined

**MELTING POINT/FREEZING POINT:** Not determined  
**BOILING POINT (°F/C):** >450/232  
**FLASH POINT (°F/C) [Method]:** >400/204 [COC]  
**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** Not determined  
**AUTOIGNITION TEMPERATURE:** Not determined  
**DECOMPOSITION TEMPERATURE:** Not determined  
**EVAPORATION RATE (n-Butyl Acetate=1):** Not determined  
**VAPOR PRESSURE (mm Hg):** < 1.0  
**VAPOR DENSITY (Air=1):** Not determined  
**SOLUBILITY (ies) in Water:** Insoluble  
**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 0.9712  
**LOG POW (n-Octanol/Water Partition Coefficient):** Not determined  
**PERCENT VOLATILE BY VOLUME:** Nil

## SECTION 10

## STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** This material is considered to be stable under specified conditions of use, shipment and storage.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Strong oxidizing agents.

**CONDITIONS TO AVOID:** Extremely high temperatures, excessive heat and high energy sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, fumes and smoke may be released upon combustion and/or thermal decomposition.

**HAZARDOUS REACTION/ POLYMERIZATION:** Hazardous reaction/polymerization will not occur.

## SECTION 11

## TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY VALUES:** There is no data available for this product as a whole.

**Materials defined as complex substance(s) (petroleum):** Oral LD<sub>50</sub> (Rat) = > 5000 mg/kg

Dermal LD<sub>50</sub> (Rabbit) = > 2000 mg/kg

Inhalation LC<sub>50</sub> (Rat) = > 5000 mg/m<sup>3</sup>

**Octadecanoic acid, 12-Hydroxy:** No data available

**Calcium hydroxide:** Oral LD<sub>50</sub> (Rat) = 7340 mg/kg

Dermal LD<sub>50</sub> (Rabbit) = No data available

Inhalation LC<sub>50</sub> (Rat) = No data available

**Petroleum process oil, <3.0% DMSO extractable material:** Oral LD<sub>50</sub> (Rat) = > 5000 mg/kg

Dermal LD<sub>50</sub> (Rabbit) = > 2000 mg/kg

Inhalation LC<sub>50</sub> (Rat) = No data available

**Antimony dialkyldithiocarbamate:** Oral LD<sub>50</sub> (Rat) = > 16400 mg/kg

Dermal LD<sub>50</sub> (Rabbit) = > 16000 mg/kg

Inhalation LC<sub>50</sub> (Rat) = No data available

**IRRITANT EFFECT ON THE SKIN:** Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404.

**IRRITANT EFFECT ON THE EYES:** May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405.

**SENSITIZATION:** Not expected to be a respiratory sensitizer. Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406.

**ASPIRATION:** Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.

**MUTAGENICITY:** Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline(s) 471, 473, 474, 476.

**CARCINOGENICITY:** This material is not classified as a carcinogen according to IARC, NTP or OSHA. Not expected to cause cancer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline(s) 451, 453.

**REPROTOXICITY/TERATOGENICITY:** Not expected to be a reproductive toxicant. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline(s) 414, 421.

**SPECIFIC TARGET ORGAN TOXICITY (STOT):** Single exposure: No end point data for material. Not expected to cause organ damage from a single exposure.

Repeated exposure: Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline(s) 408, 410, 411, 412, 453.

**FURTHER INFORMATION ON TOXICOLOGY:** This product contains severely refined based oils, which have been shown to not be carcinogenic in animal studies. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

**SECTION 12**

**ECOLOGICAL INFORMATION**

**ECOTOXICITY:** There is no data available for this product as a whole.

**Materials defined as complex substance(s) (petroleum):** This material is not expected to be harmful to aquatic organisms.

**Octadecanoic acid, 12-Hydroxy:** This component is harmful to aquatic life with long-lasting effects.

**Calcium hydroxide:** This component has a severe aquatic toxicity in high concentrations from high alkalinity (pH- 12.454) in concentrations > 1 gram/L.

**INFORMATION ON ELIMINATION (PERSISTENCE AND DEGRADABILITY)**

**MOBILITY:** Based upon available data for the components, this material is expected to have a low solubility and float, and is expected to migrate from water to land. Expected to partition to sediment and wastewater solids. Low potential to migrate through soil.

**BIOACCUMULATION:** Based upon available data for the components, material has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

**BIODEGRADATION:** Expected to be inherently biodegradable based upon available data for the components.

**ECOLOGICAL DATA:**

**Ecotoxicity: Materials defined as complex substance(s):**

Test	Duration	Organism Type	Test Results
Aquatic - Acute Toxicity	96 hour(s)	Pimephales promelas	LL0 100 mg/l: data for similar materials
Aquatic - Acute Toxicity	48 hour(s)	Daphnia magna	EL0 1000-10000 mg/l: data for similar materials
Aquatic - Chronic Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	NOELR 100 mg/l: data for similar materials
Aquatic - Acute Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	EL0 100 mg/l: data for similar materials
Aquatic - Chronic Toxicity	21 day(s)	Daphnia magna	NOELR 10-1000 mg/l: data for similar materials

**Persistence, Degradability and Bioaccumulation Potential**

Media	Test Type	Duration	Test Results
Water	Ready Biodegradability	28 day(s)	Percent Degraded <60: similar material

**FURTHER INFORMATION ON ECOLOGY:** Do not allow to contaminate the soil, waterways or waste water

**SECTION 13**

**DISPOSAL CONSIDERATIONS**

**DISPOSAL CONSIDERATIONS:** Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Dispose of in accordance with all federal, state and local regulations.

**REGULATORY DISPOSAL INFORMATION:** RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D). It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

**EMPTY CONTAINER WARNING:** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely cleaned and safely stored until appropriately reconditioned or disposed of. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractors and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

**SECTION 14****TRANSPORT INFORMATION**

**U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING DESCRIPTION:** Non-regulated material.  
**INTERNATIONAL MARITIME ORGANIZATION (IMDG) SHIPPING DESCRIPTION:** Non-regulated material.  
**FREIGHT CLASSIFICATION:** Petroleum, lubricating grease (NMFC 155250 SUB 2 CLASS 65)

**SECTION 15****REGULATORY INFORMATION**

**OSHA HAZARD COMMUNICATION STANDARD:** This material is not considered to be hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.  
**LISTED OR EXEMPT FROM LISTING/NOTIFICATION ON THE FOLLOWING CHEMICAL INVENTORIES:** AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA.  
**EPCRA SECTION 302:** This material contains no extremely hazardous substances.  
**CERCLA:** This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.  
**SARA (311/312) REPORTABLE HAZARD CATEGORIES:** None.  
**SARA (313) TOXIC RELEASE INVENTORY:** Antimony dialkyldithiocarbamate (NJTSR No. 800983-5015P), Maximum 2.0% wt.  
**CLEAN WATER ACT (CWA):** If spilled into waters of the U.S., this material may be reportable under the Clean Water Act.  
**CLEAN AIR ACT (CAA):** This material is not a hazardous substance under the Clean Air Act.

**SECTION 16****OTHER INFORMATION**

**REVISION INDICATOR:** New SDS compliant with GHS AND OSHA.  
**DATE OF REVISION:** 06/28/2019  
**SUPERSEDES:** 02/28/2018

**DISCLAIMER:** THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH. THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE TO THE BEST OF OUR KNOWLEDGE. ROYAL OIL COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATE, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. ROYAL OIL COMPANY MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE SAFE USE OF THIS MATERIAL IN YOUR PROCESS OR IN COMBINATION WITH OTHER SUBSTANCES. ROYAL OIL COMPANY ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.