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## Material Safety Data Sheet

# Kaeser Compressors, Inc.

3760 La Verendrye, Boisbriand, QC Canada J7H 1R5

Date Issued/Revised: December 12, 2003

**I. Product Name: SIGMA M-460 Air Compressor Fluid**

Chemical Family: Synthetic based lubricant

Use: Lubricant and corrosion inhibitor

Manufacturer: Royal Purple, Ltd.

Address: 1 Royal Purple Lane, Porter, Texas 77365 USA

Phone: 281-354-8600 Emergency Phone: 281-354-8600 Fax: 281-354-7600

II. Component:	CAS Number:	Percentage:
• Poly Ester Synthetic	68515-49-1	5 to 10%
• Hydrogenated ISO-Paraffin	64742-54-7	85 to 90%
• Synthetic Oxidation Inhibitor	68921-45-9	0.5 to 1%
• Synthetic Corrosion Inhibitor	28015-99-8	0.5 to 1%
• Synthetic EP Additive	68511-50-2	1.0 to 5%
• Synthetic Oxidation Inhibitor	41484-35-9	0.5 to 1%

This product contains no hazardous substance within the definition of OSHA Regulation 29 CFR 1910.1200.

**III. Main Hazards / Health Effects:**

Eyes: May cause irritation.

Inhalation: Hydrocarbon mist may line breathing passages with oil making breathing difficult.

Ingestion: May cause diarrhea.

Skin: May irritate the skin after prolonged periods of contact.

**IV. First Aid:**

Eyes: Flush with water until all residual material is gone. If irritation persists, seek medical help.

Inhalation: Clear air passage. If respiratory difficulty continues, seek medical help.

Ingestion: Wash out mouth immediately. Do not induce vomiting. Consult physician.

Skin: Wash thoroughly with hand cleanser, followed by soap and water. Contaminated clothing should be dry cleaned before reuse.

**V. Extinguishing Media:**

Suitable: Foam, dry powder, Halon®, carbon dioxide, sand, earth and water mist.

Unsuitable: Water jet.

Protective Equipment for Fire Fighting: Self-contained breathing apparatus.

**VI. Accidental Release Measures:**

Personal Precautions: Wear gloves and protective overalls.

Environmental Precautions: Do not allow it to enter drains.

Spillage: Contain spill and keep from entering waterways. Absorb on porous material. Large quantities can be pumped.

**VII. Handling and Storage:**

Handling: No special handling precautions necessary.

Storage: Do not store at elevated temperatures.

**VIII. Exposure Control / Personal Protection:**

Respiratory Protection: Hydrocarbon absorbing respirator if misting.

Hand Protection: Oil-proof gloves for hypersensitive persons.

Eye Protection: Glasses, if applied to parts in motion.

Body Protection: Overalls.

**IX. Physical and Chemical Properties:**

Physical State: Liquid

Color: Golden

Odor: Mild Hydrocarbon

pH: Neutral

Boiling Range / Point °F (°C): >600 (>316)

Pour Point °F (°C): <-30 (<-34)

Flash Point (COC) °F (°C): >450 (>232)

Autoignition Temperature °F (°C): >600 (>315)

Evaporation Rate (Butyl Acetate): Negligible

Vapor Pressure (kPa): <0.01

Percent Volatiles: None

Density (g/cm<sup>3</sup>): >0.8 and <1.0

Flammability: Not flammable at ambient temp.

Oxidizing Properties: None

Water Solubility: Insoluble

Vapor Density: Greater than air

Product Name: **SIGMA M-460 Air Compressor Fluid**

**X. Stability and Reactivity:**  
**Stability:** Chemically stable under normal conditions. No photoreactive agents.  
**Conditions to Avoid:** Powerful sources of ignition and extreme temperatures.  
**Materials to Avoid:** Strong inorganic and organic acids, oxidizing agents.  
**Hazardous Decomposition Products:** Burning generates smoke, airborne soot, hydrocarbons and oxides of carbon, sulfur and nitrogen. Residue mainly comprised of soot and mineral oxides.

**XI. Toxicological Information:**  
**Acute Toxicity:** Not known  
**Irritancy-Skin:** Very mild  
**Skin Sensitization:** Not known  
**Subacute / Sub-chronic Toxicity:** Not known  
**Genotoxicity:** None known  
**Chronic Toxicity:** None known

**California Prop 65:** N/A  
**Carcinogen:** NTP: No  
**IARC:** No  
**OSHA:** No  
**EC Classification (67 / 548 / EEC):** No  
**LC-50:** >2000mg/l - extrapolated from component data  
**LD-50:** Not applicable

**XII. Ecological Information:**  
**Possible Effects:** In extreme cases, may generate oil fractions that could act as a marine pollutant. Occurrences of this nature are highly unlikely.  
**Behavior:** Relatively well behaved. Bioaccumulation potential nil.  
**Environmental Fate:** Due to its fluid nature and specific gravity, this product will float or spread across water making it a nuisance contaminant. It is not thought to be toxic to marine or land organisms.

**XIII. Waste and Container Disposal:**  
**Waste Disposal:** Consider recycling. This product, as sold, does not meet the RCRA characteristics of a hazardous waste. Under RCRA, it is the responsibility of the user, at the time of disposal, to determine whether the product meets the RCRA criteria for hazardous waste. Contact a waste disposal company or local authority for advice.  
**Container Disposal:** See waste disposal section listed above.

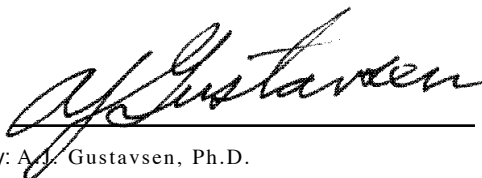
**XIV. Transport Information:**  
**DOT:** Nonhazardous  
**UN No.:** N/A  
**DOT:** Nonhazardous

**Air Transport (ICAO, IATA):** Bulk Nonhazardous  
**Sea Transport (IMO, IMDG):** Bulk Nonhazardous  
**Road and Rail Transport (ADR / RID):** Bulk Nonhazardous

**XV. Regulatory Information:**  
**Labeling Information:** None needed  
**EC Annex 1 Class.:** N/A  
**R Phrases:** N/A  
**SARA 311 / 312:** None  
**S Phrases:** S-3 keep cool, S-16 keep away from ignition sources  
**Ozone Depleting Chemicals:** N/A

**CERCLA:** Nonhazardous  
**TSCA:** All components are listed  
**WHMIS (Canada):** Not regulated  
**Canadian DSL:** All components are listed  
**40 CFR Part 372 (SARA Section 313):** N/A  
**RCRA Hazard Class:** Nonhazardous  
**TSCA 12B Components:** None

**XVI. Other Information:**

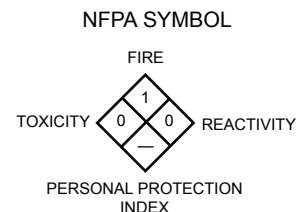
Signature: 

Prepared By: A. J. Gustavsen, Ph.D.

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LEGEND	
I.	Identification of the Substance / Preparation and Company
II.	Composition Information on Ingredients
III.	Hazards Identification
IV.	First Aid Measures
V.	Fire Fighting Measures
VI.	Accidental Release Measures
VII.	Handling and Storage
VIII.	Exposure Control / Personal Protection
IX.	Physical and Chemical Properties
X.	Stability and Reactivity
XI.	Toxicological Information
XII.	Ecological Information
XIII.	Waste Disposal
XIV.	Transport Information
XV.	Regulatory Information
XVI.	Other Information



**HMIS SYMBOL**

HEALTH	0
FLAMMABILITY	1
REACTIVITY	0
PPI	N/A