



Built for a lifetime.

MATERIAL SAFETY DATA SHEET

Kaeser Compressors, Inc.

511 Sigma Drive • Fredericksburg, VA 22408

Date Issued/Revised: February 23, 2007

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.

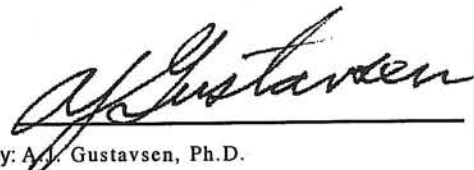
VII. Handling and Storage:
 Handling: No special handling precautions necessary.
 Storage: Do not store at elevated temperatures.

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:	Evaporation Rate (Butyl Acetate): Negligible
Physical State: Liquid	Vapor Pressure (kPa): <0.01
Color: Golden	Percent Volatiles: None
Odor: Mild Hydrocarbon	Density (g/cm ³): >0.8 and <1.0
pH: Neutral	Flammability: Not flammable at ambient temp.
Boiling Range / Point °F (°C): >600 (>316)	Oxidizing Properties: None
Pour Point °F (°C): -22 (-30)	Water Solubility: Insoluble
Flash Point (COC) °F (°C): 425 (218)	Vapor Density: Greater than air
Autoignition Temperature °F (°C): >600 (>315)	

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.
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- 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
 LD-50: >2000mg/l - extrapolated from component data
 LC-50: Not applicable
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- XII. Ecological Information:**
 Mobility: When released into the environment, adsorption to sediment and soil will be the predominant behavior.
 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.
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- 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.
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- 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
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- 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
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- XVI. Other Information:**

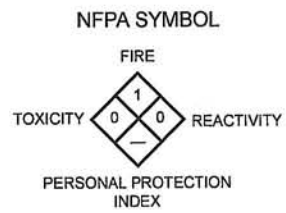
Signature: 

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

Date Issued/Revised: February 23, 2007

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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



HMS SYMBOL

HEALTH	0
FLAMMABILITY	1
REACTIVITY	0
PPI	N/A

MATERIAL SAFETY DATA SHEET

***** SECTION 1 - IDENTIFICATION *****

HOUGEN MANUFACTURING INC.
3001 HOUGEN DRIVE
P.O. BOX 2005
FLINT, MI 48501 - 2005
TELEPHONE: (810) 635- 7111 FAX (810) 635-8277

TRADE NAME SLICK STIK
COMMON NAME SAME

CAT. NO. CE-3HG
CONTAINER / SIZE STICK 1.68 OZ. TUBE

NFPT - HEALTH 0 FLAMMABILITY 1 REACTIVITY 0
HMIS - HEALTH 0 FLAMMABILITY 1 REACTIVITY 0

SPECIFIC HAZARD
PROTECTIVE EQUIPMENT A

***** SECTION 2 - HAZARDOUS *****

<u>HAZARDOUS INGREDIENT</u>	<u>CAS NO.</u>	<u>WGH. %</u>	<u>TLV</u>
1. PARAFFIN WAX	<u>64742-51-4</u>	<u>30-45</u>	<u>2 CU @ (FUME)</u>
2. PETROLEUM OIL*	<u>NOT ASSIGNED</u>	<u>30-45</u>	<u>5 CU @ (MIST)</u>
3. MICROCRYSTALLINE WAX	<u>NOT ASSIGNED</u>	<u>15-20</u>	<u>NOT ASSIGNED</u>
4. TALLOW	<u>61790-97-7</u>	<u>5-10</u>	<u>NOT ASSIGNED</u>
5. CARNAUBA WAX	<u>8015-86-9</u>	<u>1-5</u>	<u>NOT ASSIGNED</u>
6. POLYETHYLENE	<u>9002-88-4</u>	<u>1-5</u>	<u>NOT ASSIGNED</u>
7. NAPHTHENIC ACID, ZINC SALT	<u>12001-85-3</u>	<u>1-5</u>	<u>NOT ASSIGNED</u>
8.			

NOTE * PETROLEUM OIL IS SEVERELY HYDRATREATED OR SOLVENT REFINED. IT DOES NOT REQUIRE LABELING AS A CARCINOGEN.

***** SECTION 3 - PHYSICAL DATA *****

PH - SUPPLIED NOT DETERMINED BOILING POINT NOT DETERMINED
PH - DILUTED NOT DETERMINED % VOLATILES NIL
WATER SOLUBILITY INSOLUBLE VAPOR PRESSURE NEGLIGIBLE
SPECIFIC GRAVITY (MATERIAL) 0.75 VAPOR DENSITY NOT APPLICABLE
MELTING POINT 162° F, ASTM D127 EVAPORATION RATE NOT APPLICABLE

APPEARANCE TAX WAXY SOLID WITH BLAND PETROLEUM ODOR.

***** SECTION 4 - FIRE & EXPLOSION DATA *****

FLASH POINT 380°F METHOD C.O.C. AUTO IGNITION TEMP. NOT DETERMINED
FLAMMABLE LIMITS IN AIR - LEL NOT DETERMINED UEL NOT DETERMINED
EXTINGUISHING MEDIA DRY CHEMICAL, FOAM, CARBON DIOXIDE OR WATER FOG
SPECIAL PROCEDURE WEAR SELF CONTAINED BREATHING APPARATUS. USE WATER FOG TO MINIMIZE VAPORS IN AIR
UNUSAL HAZARDS NONE

***** SECTION 5 - REACTIVITY DATA *****

UNSTABLE AND / OR AUTO REACTIVITY STABLE
INCOMPATIBLE MATERIALS STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS OXIDES OF CARBON AND ZINC

***** SECTION 6 - EMERGENCY FIRST AID *****

EYES - FLUSH WITH WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN
SKIN - WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF ADVERSE EFFECTS ARISE
INGESTION - DO NOT INDUCE VOMITING. CONSULT A PHYSICIAN
INHALATION - REMOVE TO FRESH AIR. ADMINISTER ARTIFICIAL RESPIRATION AS NEEDED.

***** SECTION 7 - HEALTH EFFECTS *****

EYES - MAY CAUSE IRRITATION
SKIN - IN MOLTEN STATE MAY CAUSE SEVERE BURNS
INGESTION - NOT KNOWN
INHALATION - ASPIRATION OR INHALATION OF FUMES OR MIST MAY CAUSE RESPIRATORY PROBLEMS
OTHER EFFECTS - NOT KNOWN

***** SECTION 8 VENTILATION AND PROTECTIVE MEASURES *****

VENTILATION REQUIREMENT - LOCAL EXHAUST WHEN USING PRODUCT IN MOLTEN STATE
EYES YES GLOVES NO CLOTHING NO RESPIRATORY NO
OTHER - EYE WASH IN WORK AREA

***** SECTION 9 - STORAGE AND HANDLING PROCEDURES *****

CONDITIONS TO AVOID - AVOID EXCESS HEAT AND IGNITION SOURCES. STORE IN COOL AREAS

***** SECTION 10 - SPILL PROCEDURES AND WASTE DISPOSAL *****

SPILL PROCEDURE - DIKE AREA TO CONTAIN PRODUCT SPILL. ALLOW TO COOL. SCRAPE MATERIAL UP AND PLACE IN CONTAINER FOR DISPOSAL.
DISPOSAL METHOD - REMOVAL BY AN APPROVED, LICENSED WASTE HAULER
EPA WASTE I.D. NO. NOT REQUIRED

ISSUE DATE 6/01/2007

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