MATERIAL SAFETY DATA SHEET

PRODUCT NAME: JENKINOL 680 (EPOXIDIZED SOYBEAN OIL)

CHEMICAL PRODUCT AND DISTRIBUTOR IDENTIFICATION

TRADE NAME: JENKINOL 680 (ESO)
CAS #: 8013-07-8

DATE: May 27, 2005
DISTRIBUTOR:
ADDRESS:

DISTRIBUTED BY
R. E. CARROLL, INC.
1570 NORTH OLDEN AVENUE
TRENTON, NJ 08638-3204
609-695-6211 / 800-257-9365

TELEPHONE: (800) 223 - 7054
FAX: (215) 591 – 3620
EMERGENCY: CHEMTREC (800) 424-9300

HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

EMERGENCY OVERVIEW:

Light yellow viscous liquid, slight vegetable odor.
Handle in accordance with good industrial hygiene and safety practices.

POTENTIAL HEALTH EFFECTS:

Inhalation and ksin contact are expected to be the primary routes of occupational exposure to this material. On the basis of available information, exposure to this material is not expected to produce significant adverse human health effects; however, use of appropriate good industrial hygiene and safety precautions to control exposure is recommended when handling or using this material.

FIRST AID MEASURES

SKIN / EYES: In case of contact, flush area with plenty of water. Remove material from clothing. Wash clothing before reuse.
INGESTION: Induce vomiting as directed by medical personnel. Get medical attention. Never give anything by mouth to an unconscious person.
INHALATION: Remove to fresh air.

PHYSICAL/CHEMICAL CHARACTERISTICS

APPEARANCE/ODOR:	Light yellow viscous liquid, slight vegetable odor.
pH:	Not established
SPECIFIC GRAVITY (H_2O=1):	0.994
VAPOR PRESSURE (mm Hg):	Very low
VAPOR DENSITY (AIR=1):	Nonvolatile
MELTING POINT, °C:	Not established
FREEZING POINT:	0 (32°F)
BOILING POINT:	Decomposes
SOLUBILITY IN WATER:	Insoluble
EVAPORATION RATE:	Very low
% VOLATILE:	0.07

FIRE & EXPLOSION HAZARD DATA

FIRE AND EXPLOSIVE PROPERTIES:

AUTOIGNITION TEMP:	Not applicable
FLASH POINT:	590°F (COC)
UEL / LEL:	Not applicable

EXTINGUISHING MEDIA: Use water spray. A solid stream of water can cause frothing and spattering. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). fire fighting equipment should be thoroughly decontaminated after use.

FIRE FIGHTING INSTRUCTIONS: Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear)) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). fire fighting equipment should be thoroughly decontaminated after use.

FIRE AND EXPLOSION HAZARDS: When burned, hazardous products of combustion including carbon monoxide and carbon dioxide can be formed. Acrolein can be generated at 550°F

ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR LEAK: Isolate hazard area and deny entry to unnecessary or unprotected personnel. Contain spilled liquid with sand or earth. Clean up spill immediately, observing precautions in the Personal Protection section of MSDS. Avoid runoff into storm sewers and ditches which lead to waterways.

HANDLING AND STORAGE

HANDLING: Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing.

STORAGE: This material is not hazardous under normal conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage. It is recommended that containers be raised above floor or ground during extended storage periods to prevent container corrosion due to standing water.

STABILITY AND REACTIVITY

STABILITY:	Stable under specified conditions or storage. (See section on handling/storage)
HAZARDOUS POLYMERIZATION:	May occur if contaminated with strong mineral acid.
INCOMPATIBILITY:	Contact with strong acid may result in volume expansion. Do not expose to temperatures greater than 400°F.
HAZARDOUS DECOMPOSITION:	None known.

ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:
This material is practically non-toxic to brine shrimp (24 hour LC50 240 mg/l)
CHEMICAL FATE INFORMATION:
The non-acclimated and acclimated extent of bio-oxidation were 0% and 24% respectively, after 20 days in fresh water. The measured chemical oxygen demand (COD was determined to be 2.24 mg/mg. This material is not considered readily biodegradable in fresh water based on these data.

EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposures. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

EYE/FACE PROTECTION:

Use good industrial practice to avoid eye contact.

SKIN PROTECTION:

Minimize skin contamination by following good industrial hygiene practice. Wearing rubber gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

RESPIRATORY PROTECTION:

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR 1910.134.

AIRBORNE EXPOSURE GUIDELINES FOR INGREDIENTS:

The components of this product have no established Airborne Exposure Guidelines.

TOXICOLOGICAL INFORMATION

SINGLE EXPOSURE (ACUTE) STUDIES INDICATE:

ORAL:	Practically non-toxic to rats (LD50 22,400 mg/kg)
DERMAL:	Practically non-toxic to rabbits (LD50 19,900 mg/kg)
INHALATION:	Exposure to concentrated vapors for 8 hours produced no deaths in rats
EYE IRRITATION:	Slightly irritating to rabbits.
SKIN IRRITATION:	Slightly irritating to rabbits

No skin allergy was observed in guinea pigs following repeated exposure. Lon-term dietary administration to rats produced increased mortality, reduced body weight gains, kidney and liver changes (enlarged, fatty infiltration of the liver), degeneration of the testes, and slight changes in the uterus. Life-time application to the skin of mice or life-time administration int he diet to rats did not increase the incidence of tumors. No effects were seen on the ability of male or female rats to reproduce or on the development of the offspring when exposed orally prior to mating. No genetic changes were observed in tests using bacteria and human or animal cells.

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Recover, reclaim or recycle when practical.

Disposal via incineration is recommended. Appropriate pretreatment and disposal in an authorized landfill is acceptable. In all cases, dispose of material in accordance with all applicable federal, state and local laws and regulations. Consult appropriate regulatory officials or your attorney for information on such disposal.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

TRANSPORT INFORMATION

DOT NAME:	Not regulated
DOT TECHNICAL NAME:	
DOT HAZARD CLASS:	
UN NUMBER:	
DOT PACKING GROUP:	PG
RQ:	NA

REGULATORY INFORMATION

HAZARD CATEGORIES UNDER CRITERIA OF SARA TITLE III RULES (40 CFR PART 370)

Immediate (Acute) Health:	N
Delayed (Chronic) Health:	N
Fire:	N
Reactive:	N
Sudden Release of Pressure:	N

The components of this product are all on the TSCA inventory list.

SARA REPORTABLE QUANTITIES:
CERCLA RQ: Not established
SARA TPQ: