



## Chemurgic's OR-100 Super Spreader Listed by the Organic Materials Review Institute (OMRI) for use in organic production

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufactured By:** Chemurgic Agricultural Chemicals, Inc.  
P.O. Box 2106  
Turlock, CA 95381

**Revised:** 08/01/2014

**Preparer:** PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS

**CHEMTREC** 1-800-424-9300

**Chemical Family/Use:** Organomodified Polydimethylsiloxane

**Formula:** Siloxane Polyalkyleneoxide Copolymer

#### HMIS

Flammability: 1      Reactivity: 0      Health: 2

#### NFPA

Flammability: 1      Reactivity: 0      Health: 2

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

WARNING! Aerosol harmful if inhaled. Vapor may cause blurring of vision. Repeated ingestion may cause damage to the liver, kidneys, thyroid, male and female reproductive system, and blood-forming system. Repeated inhalation of aerosol of the neat liquid may cause damage to the eyes, blood-forming system, kidneys, thymus, respiratory tract, and nasal cavity.

**Form:** Liquid

**Color:** Pale yellow

**Odor:** Moderate polyether

#### POTENTIAL HEALTH EFFECTS

#### INGESTION

Effects of repeated overexposure: Ingestion may cause: - injury to the liver - injury to the kidney - injury to the thyroid - injury to the bloodforming system - injury to the male and female reproductive systems

#### SKIN

Brief contact is not expected to produce irritation. Prolonged contact may result in: - minor irritation - transient local redness - swelling

#### INHALATION

Harmful effects are not expected from static vapor at ambient temperature. Inhalation of an aerosol of the neat material within a confined space could result in respiratory distress and eye injury. Effects of repeated overexposure: Aerosol may cause: - damage to respiratory tract - injury to the eyes - injury to the nasal cavity - injury to the bloodforming system

#### EYES

Liquid splashed into the eye causes discomfort. Causes the following effects: - moderate



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redness of the conjunctivae - iridal inflammation - tear production Injury to the cornea is not expected.

### MEDICAL CONDITIONS AGGRAVATED

Skin contact may aggravate: - an existing dermatitis

### SUBCHRONIC (TARGET ORGAN )

Liver; Kidney

### CHRONIC EFFECTS / CARCINOGENICITY

For additional information, please see Section 11, Toxicological Information.

### ROUTES OF EXPOSURE

Ingestion; Inhalation

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>PRODUCT COMPOSITION</u>	<u>CAS REG NO.</u>	<u>WGT. %</u>
<b><u>A. HAZARDOUS</u></b>		
Siloxane Polyalkyleneoxide Copolymer	Trade secret	> 70%
Polyalkylene Oxide	Trade secret	< 30 %

### **B. NON-HAZARDOUS**

## 4. FIRST AID MEASURES

### INGESTION

Do NOT induce vomiting. If victim is conscious, give 2 glasses of water. Do not give victim anything to drink if he is unconscious. Get medical attention.

### SKIN

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if symptoms persist.

### INHALATION

Remove to fresh air. Artificial respiration and/or oxygen may be necessary. Call a physician or poison control center immediately.



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### EYES

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms persist.

### NOTE TO PHYSICIAN

Treatment is symptomatic and supportive.

## 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** 143 °C; 289 °F  
**METHOD:** ASTM D 93  
**FLAMMABLE LIMITS IN AIR - LOWER (%):** No data available.  
**FLAMMABLE LIMITS IN AIR - UPPER (%):** No data available.

**SENSITIVITY TO MECHANICAL IMPACT:** No

### SENSITIVITY TO STATIC DISCHARGE

Sensitivity to static discharge is not expected.

### EXTINGUISHING MEDIA

All standard extinguishing agents are suitable.

### SPECIAL FIRE FIGHTING PROCEDURES

Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

### ENVIRONMENTAL PRECAUTIONS

Do not allow runoff to sewer, waterway or ground.

## 7. HANDLING AND STORAGE

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Avoid contact with skin and eyes. Keep out of reach of children. Attention: Not for injection into humans. May generate formaldehyde at temperatures greater than 150 C(300 F). See Section 10 of MSDS for details.



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### OTHER PRECAUTIONS

Consult the manufacturer before using an aerosol of the neat liquid.

### STORAGE

Keep container closed. Store in original container.

### FURTHER INFORMATION ON STORAGE CONDITIONS

No data available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS

Provide eyewash station and safety shower.; Eye wash bottle with pure water; General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment.; Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

### RESPIRATORY PROTECTION

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

### PROTECTIVE GLOVES

Impermeable or chemical resistant gloves.

### EYE AND FACE PROTECTION

Safety glasses with side shields

### OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

### Exposure Guidelines

<u>Component</u>	<u>CAS RN</u>	<u>Source</u>	<u>Value</u>
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Absence of values indicates none found

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average; INTL REL - Internal Recommended Exposure Limit

OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT - C & F:	>150 °C; 302 °F; Copolymer
VAPOR PRESSURE (20 C) (MM HG):	< 1
VAPOR DENSITY (AIR=1):	> 1
FREEZING POINT:	-50 °C; -58 °F; Pour point
PHYSICAL STATE:	Liquid
ODOR:	Moderate polyether
COLOR:	Pale yellow
EVAPORATION RATE (BUTYL ACETATE=1):	< 1
DENSITY:	1.002 g/cm <sup>3</sup>
SOLUBILITY IN WATER (20 C):	Dispersible
VOC EXCL. H <sub>2</sub> O & EXEMPTS (G/L):	24.5 g/l

### 10. STABILITY AND REACTIVITY

#### HAZARDOUS POLYMERIZATION

Hazardous polymerisation does not occur.

#### HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

In case of fire, gives off (emits); Carbon oxides; Oxides of silicon.; Formaldehyde.; Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.; Acute overexposure to the products of combustion may result in irritation of the respiratory tract.; This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. **A MSDS for formaldehyde is available from Momentive.**

#### INCOMPATIBILITY (MATERIALS TO AVOID)

None known.

#### CONDITIONS TO AVOID

None known.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE ORAL

LD50; Species: Rat; > 2,000 mg/kg;

#### ACUTE DERMAL

LD50; Species: Rat; > 2,000 mg/kg; Remarks: Low order of toxicity.

#### ACUTE INHALATION

LC50; Species: Rat; 2 mg/l; Remarks: Aerosol., The health hazard evaluation is based on the



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toxicological properties of a similar material.

LC50; Species: Rat; > 11.78 mg/l; Remarks: 5% Diluted aqueous solution, Aerosol., The health hazard evaluation is based on the toxicological properties of a similar material.

### OTHER

The following information is based on analogy with a similar material: This material was not mutagenic in three mammalian test systems including the Chinese Hamster Ovary (CHO)/HGPRT gene mutation assay, a micronucleus cytogenetic assay in mice, and an in vitro mammalian cytogenetic test. In a repeated skin application study with rats, this material caused moderate skin irritation which resolved during a post-application recovery period. There was no evidence for percutaneous cumulative or specific organ toxicity, and no effect on male or female reproductive systems. Findings from a 14-day dietary feeding study with rats show that high dosage repeated ingestion of this material causes reversible adverse effects on the male and female reproductive tracts. Additional effects seen include increased liver weight, altered blood cytology/chemistry, and thyroid enlargement (primarily hypertrophy, with some hyperplasia). Evidence of partial or complete recovery was found over a 28-day recovery period. Findings from a repeat 9-day aerosol inhalation toxicity study with rats show a no-observable-effect-level (NOEL) of less than 0.025 mg/l. Symptoms of toxicity included rales, gasping, ocular opacity, prostration, hypothermia, reduced body weight gain and food consumption, changes in clinical pathology, decreased thymus weight, and microscopic lesions in the nasal cavity. There was no effect on the male or female reproductive systems. It is not anticipated that the use of aqueous dilutions of this product would result in this type of aerosol exposure.

### SENSITIZATION

Species: Guinea Pig; Result: did not produce sensitization. Method: Magnusson-Kligmann-Test.

### SKIN IRRITATION

Species: Rabbit; Result: Slightly irritating. Semi-occlusive

### EYE IRRITATION

Species: Rabbit ; Result: Slightly irritating.

### MUTAGENICITY

Negative in the Ames test.

### OTHER EFFECTS OF OVEREXPOSURE

No adverse effects anticipated from available information.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

No data available.

### DISTRIBUTION

No data available.



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### CHEMICAL FATE

No data available.

## 13. DISPOSAL CONSIDERATIONS

### DISPOSAL METHOD

Disposal should be made in accordance with federal, state and local regulations.

## 14. TRANSPORT INFORMATION

<b>DOT SHIPPING NAME:</b>	Environmentally hazardous substances, liquid, n.o.s.(Polyalkyleneoxide modified Heptamethyltrisiloxane)
<b>DOT HAZARD CLASS:</b>	9
<b>DOT LABEL (S):</b>	9
<b>UN/NA NUMBER:</b>	UN3082 NA 3082
<b>PACKING GROUP:</b>	III
<b>IMDG SHIPPING NAME:</b>	Environmentally hazardous substances, liquid, n.o.s.(Polyalkyleneoxide modified Heptamethyltrisiloxane)
<b>CLASS:</b>	9
<b>IMDG-LABELS:</b>	9
<b>UN NUMBER:</b>	UN3082
<b>PACKING GROUP:</b>	III
<b>EMS No:</b>	F-A; S-F
<b>IATA:</b>	Environmentally hazardous substances, liquid, n.o.s.(Polyalkyleneoxide modified Heptamethyltrisiloxane)
<b>CLASS:</b>	9
<b>ICAO-LABELS:</b>	9MI
<b>UN NUMBER:</b>	UN3082
<b>PACKING GROUP:</b>	III
<b>Further Information:</b>	This substance/preparation meets the criteria of a Marine Pollutant (see IMDG paragraph 2.9.3.3) but is not identified in the IMDG Code (Marpol list). As such, substance/preparation shall be transported as a marine pollutant in accordance with the IMDG code.

## 15. REGULATORY INFORMATION

### Inventories



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EU list of existing chemical substances y (positive listing)

Japan Inventory of Existing & New Chemical Substances (ENCS) y (positive listing)

China Inventory of Existing Chemical Substances y (positive listing)

Korea Existing Chemicals Inventory (KECI) y (positive listing)

Philippines Inventory of Chemicals and Chemical Substances (PICCS) y (positive listing)

TSCA list y (positive listing)

For inventories that are marked as quantity restricted or special cases, please contact Momentive.

### US Regulatory Information

#### **SARA (311,312) HAZARD CLASS**

Acute Health Hazard; Chronic Health Hazard

#### **SARA (313) CHEMICALS**

#### **CALIFORNIA PROPOSITION 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **Canadian Regulatory Information**

#### **WHMIS HAZARD CLASS**

D2A - Very Toxic Material Causing Other Toxic Effects

D2B - Toxic Material Causing Other Toxic Effects

## **16. OTHER INFORMATION**

### **OTHER**

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. C = ceiling limit NEGL = negligible EST = estimated NF = none found  
NA = not applicable UNKN = unknown NE = none established REC = recommended ND = none determined V = recommended by vendor SKN = skin TS = trade secret R = recommended MST = mist NT = not tested STEL = short term exposure limit ppm =





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parts per million    ppb = parts per billion By-product= reaction by-product, TSCA inventory status  
not required under 40 CFR part 720.30(h-2).