



THE MICROSEAL COMPANY

Tel: 315-337-2720

Fax: 315-336-2749

Web: www.microleak.com

**E-mail:
microseal@microleak.com**

**MATERIAL SAFETY DATA SHEET
MICROSEAL-MEK and -DS-MEK**

**24 Hour
EMERGENCY Contact**

CHEMTEL: 800-255-3924

International: 01-813-248-0573

Fax: 813-248-0580

Email: kcoffing@chemtelinc.com

Web: www.chemtelinc.com

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1. Product and Company Identification

Microleak-Seal Impregnant, Inc.

D.B.A.: THE MICROSEAL CO.

MAIL: P.O.BOX 541
ROME, NY, USA 13442-0541

OFFICE: 707 WEST BLOOMFIELD ST.
ROME, NY, USA 13440

TEL: 315-337-2720

PLANT: WEST ROME INDUSTRIAL PARK
ROME, NY, USA 13440

Substance: Microseal-MEK and Microseal-DS-MEK containing Methyl Ethyl Ketone as a solvent

Symbol of solvent: C₄H₈O

Trade Names/synonyms (of solvent):

Butanone, 2-Butanone, 3-Butanone, Methyl Acetone, MEK, Ethyl Methyl Ketone, UN1193,

Chemical Family (of solvent): ketones, aliphatic

Date prepared: May 2000, Revised: December 2009

2. Hazardous components and Hazard Identification

Main Component:	Methyl Ethyl Ketone
Cas No:	78-93-3
UN No.	1193
EC No (Einecs):	201-159-0
EC Index No:	606-002-00-3
Percentage:	90% for Microseal-MEK 80% for Microseal-DS-MEK
NFPA RATINGS (scale 1-4):	Health-2, Fire-3, Reactivity-0
WHIMS CLASSIFICATION:	BD2
EC CLASSIFICATION (assigned):	F Highly flammable; Xi Irritant, R 11-36/37
	EC classification may be inconsistent with independently researched data

EMERGENCY OVERVIEW:

Color:	colorless
Physical Form:	liquid
Odor:	sweet odor, mint-like
Major	health hazards: respiratory tract irritation, skin irritation, eye irritation, central nervous system depression
Physical Hazards:	Flammable liquid and vapor. Vapor may cause flash fire.

POTENTIAL HEALTH EFFECTS:

Inhalation:

Short term exposure: irritation, nausea, vomiting, difficulty breathing, headache, drowsiness, symptoms of drunkenness, lung damage.

Long term exposure: convulsions

Skin Contact:

Short term exposure: irritation

Long term exposure: same as effects reported in short term inhalation

Eye Contact

Short term exposure: irritation, eye damage

Long term exposure: same as effects in short term exposure

Ingestion

Short term exposure: vomiting, digestive disorders, difficulty breathing, irregular heartbeat, headache, symptoms of drunkenness, coma

Long term exposure: no information on significant adverse effects

Carcinogen Status:

OSHA: N ; NTP; N; IARC; N

3. Non-hazardous components

Bakelite-type resins (which contain less than 1 ppm of Vinylchloride Monomer and less than 0.5% of Vinyl Acetate)

4. First Aid Measures

Inhalation

Remove from exposure and into fresh air immediately. If breathing is difficult administer oxygen. If breathing stopped give artificial respiration (can use a bag valve mask or similar device). Keep person warm, quiet and get medical attention.

Skin contact

Remove contaminated clothing and shoes immediately. Wash area with soap or mild detergent and with large amounts of water for at least 15 minutes. Get medical attention if needed. Launder contaminated clothing before re-use.

Eye contact

Flush eyes immediately with large quantities of water for 10-15 minutes. Occasionally lift upper and lower lids. Seek medical attention.

Ingestion

Contact the local poison control center and/or physician right away. Do not induce vomiting! (aspiration of material into the lungs due to vomiting can cause chemical pneumonia which can be fatal). When

vomiting occurs, keep head lower than hips to help prevent aspiration and if person is unconscious, turn head to the side.

Note to Physician:

For ingestion, consider gastric lavage and a slurry of activated charcoal.

5. Fire Fighting Measures

Fire and Explosion Hazards:

Severe fire hazard. The vapor is heavier than air. Therefore, vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive above flash point.

6. Accidental Release Measures

Air Release:

Reduce vapors with water spray.

Soil Release:

Dig holding area such as pond or pit for containment. Absorb with sand or other non-combustible material.

Water Release:

Cover with absorbent sheets, spill-control packs or pillows. Remove trapped material with suction hoses.

Occupational Release:

Avoid heat, flames, sparks and other sources of ignition. Remove sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray.

Small spills: Absorb with sand, vermiculite or other non-combustible material. Collect spilled material in appropriate containers for disposal.

Large spills: Wear suitable protective equipment. Dike for later disposal. Stop spill at source and prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Reportable Quantity (R.Q.): Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to R.Q. (U.S. Sarah Section 304). If release occurs in the U.S. And is reportable under CERCLA Section 103, notify the National Response Center at 800-424-8802 (USA) or 202-426-2675 (USA).

7. Handling and Storage

Store and handle in accordance with all current regulations and standards. Subject to storage regulations US OSHA29 CFR 1910.106. Grounding and bonding required. Keep separated from incompatible substances.

Keep away from heat, sparks and fire. Do not leave containers open. Use with adequate ventilation.

8. Exposure Controls, Personal Protection

Exposure Limits

Methyl Ethyl Ketone:

- 200 ppm (590 mg/m³) OSHA TWA
- 300 ppm (885 mg/m³) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)
- 200 ppm (590 mg/m³) ACGIH TWA
- 300 ppm (885 mg/m³) ACGIH STEL
- 200 ppm (590 mg/m³) NIOSH recommended TWA
- 300 ppm (885 mg/m³) NIOSH recommended STEL

Ventilation:

Provide local exhaust ventilation. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Eye protection:

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Clothing:

Wear appropriate chemical resistant clothing.

Gloves:

Wear appropriate solvent resistant gloves: Natural rubber or Neoprene

Respirator:

The following respirators and maximum use concentrations are drawn from NIOSH and /or OSHA

3000 ppm:

- Any supplied-air respirator
- Any powered, air-purifying respirator with organic vapor cartridges
- Any chemical cartridge respirator with a full face piece and organic vapor cartridges
- Any air-purifying respirator with a full face piece and an organic vapor canister
- Any self-contained breathing apparatus with a full face piece
- Any supplied-air respirator with a full face piece.

Escape:

- Any air-purifying respirator with a full face piece and an organic vapor canister
- Any appropriate escape-type, self-contained breathing apparatus.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

- Any supplied air respirator with full face piece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
- Any self-contained breathing apparatus with a full face piece.

9. Physical and Chemical Properties

Boiling Point: 176 F (80 C)

Color:	colorless, clear
Evaporation Rate:	2.7 (ether=1)
Freezing Point:	-123 F (-86 C)
Odor:	sweet like mint (non-residual)
Odor threshold:	10 ppm
PH:	not applicable
Physical State:	liquid
Solvent solubility:	
Soluble:	alcohol, ether, benzene, acetone, oils
Specific Gravity (water=1):	.836 - .840 (Microseal-MEK) .865 - .872 (Microseal-DS-MEK)
Vapor Density (air=1):	2.5
Vapor Pressure:	100 mmHg@ 25 C
Viscosity:	5.00-6.00 cP for Microseal-MEK 25.00-33.00 cP for Microseal-DS-MEK
Volatility:	Not Available
Water Solubility:	27.5%

10. Stability and Reactivity

Stability: Material is stable at normal temperatures and pressure.

Conditions to avoid: Avoid heat, flames, sparks and other sources of ignition.

Containers may rupture or explode if exposed to heat.

Never use welding or cutting torches on or near drums (even when empty)

Incompatibilities: Avoid contact with strong oxidizing agents, halo carbons, acids, combustible materials, peroxides and bases.

11. Toxicological Information

METHYL ETHYL KETONE

Irritation Data:

350 ppm human eyes, 500 mg/24 hrs rabbit skin moderate, 402 mg/24hrs rabbit skin mild, 13780 gm/24hrs open rabbit skin, 80 mg rabbit eyes

Toxicity Data:

23500 mg/m³/8hrs inhalation by rat LC50; 6480 mg/kg rabbit skin LD50; 2737 mg/kg rat orally LD50

Local Effects:

irritant: inhalation, skin, eye

Acute Toxicity Level:

Moderately toxic: ingestion

Slightly toxic: inhalation and dermal absorption

Target Organs:

central nervous system

Medical Conditions Aggravated by Exposure:

Nervous system disorders, respiratory disorders, skin disorders and allergies

Mutagenic Data:

Available

Reproductive Effects Data:

Available

12 Ecological Information

ECOTOXICITY DATA:

Fish Toxicity:

>400000 ug/L 96 hrs LC50 (Mortality) Sheepshead Minnow (*Cyprinodon variegatus*)

Invertebrate Toxicity:

5091000 ug/L 48 hrs EC50 (immobilization) Water flea (*Daphnia magna*)

Algal Toxicity:

>500000 ug/L 96 hrs EC50 (Photosynthesis) Diatom (*Skeletonema costatum*)

Environmental Summary:

Harmful to aquatic life

13. Disposal Considerations

Dispose in accordance with all applicable regulations. Hazardous Waste Number(s) D035.
Dispose of in accordance with U.S.EPA 40 CFR 262 for concentrations at or above the regulatory level.
Regulatory level- 200.0 mg/L. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Numbers: U159.

14. Transport Information

U.S. DOT 49 CFR 172.101.

In Order: SHIPPING NAME-UN NUMBER; HAZARD CLASS; PACKING GROUP; LABEL;

Shipping name = Methyl Ethyl Ketone

UN number = UN1193

Hazard class = 3

Packing group = roman numeral 2 or II

Label = flammable liquid

15. Regulatory Information

U.S. REGULATIONS:

TSCA INVENTORY STATUS: Y
TSCA 12(b) EXPORT NOTIFICATION: not listed

CERCLA SECTION 103 (40CFR302.4): Y

Methyl Ethyl Ketone: 5000 lbs RQ

SARA SECTION 302 (40CFR355.30): N

SARA SECTION 304 (40CFR.355.40): N

SARA SECTION 313 (40CFR372.65): Y

Methyl Ethyl Ketone

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21)

Acute: Y
Chronic: N
Fire: Y
Reactive: N
Sudden Release: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:

California Proposition 65: N

EUROPEAN REGULATIONS:

EC Number (EINECS): 201-159-0
EC Risk and Safety Phrases:
R11 Highly flammable
R36/37 Irritating to eyes and respiratory system
S2 Keep out of reach of children
S9 Keep container in a well-ventilated place
S16 Keep away from sources of ignition – No Smoking
S25 Avoid contact with eyes
S33 Take precautionary measures against static discharges

16. Other information

The information herein is believed to be accurate but is not warranted to be - whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.