



## SAFETY DATA SHEET

# MICROSEAL-AC® & MICROSEAL DS-AC®

Date Prepared: 29 February 2016

### 1. IDENTIFICATION

**A. SUBSTANCE:** Microseal-AC® & Microseal DS/AC® containing Acetone as a solvent.

**B. Trade Names/Synonyms of Solvent:** Dimethylketal, Dimethyl Ketone, Propanone, 2-Propanone, UN1090 • Symbol: C3-H6-O • Chemical Family: Ketones, Aliphatics.

**C. Company Name:** Microleak-Seal Impregnant Co., DBA: The Microseal Co.  
Mail: PO Box 541, Rome, NY, USA 13442-0541  
Office: 707 W. Bloomfield St., Rome, NY, USA 13440-3114  
Tel: (315) 337-2720 • email: [microseal@microleak.com](mailto:microseal@microleak.com) • [www.microleak.com](http://www.microleak.com)  
Plant: West Rome Industrial Park, Rome, NY, USA 13440

**24 Hour Emergency Contact:** Chemtel: 800-255-3924  
International: 01-813-248-0573; Fax: 813-248-0580  
email: [sales@chemtelinc.com](mailto:sales@chemtelinc.com); web: [www.chemtelinc.com](http://www.chemtelinc.com)

**D. Recommended Use of Chemical:** Sealant for porous metals.

### 2. HAZARD(S) IDENTIFICATION

**A. Classification:**

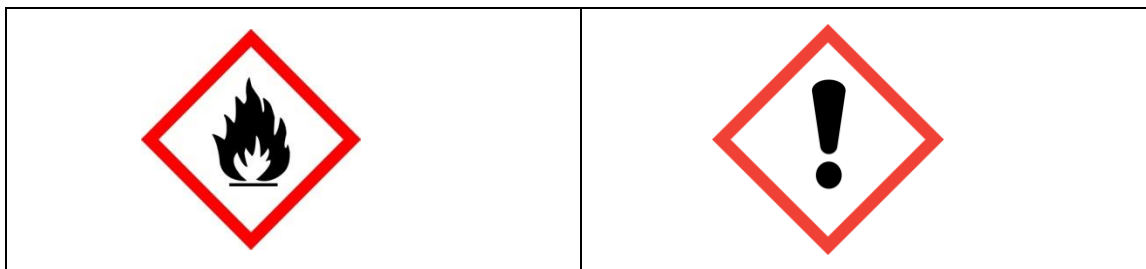
EC classification (assigned): F - Highly flammable; Xi Irritant; R 11-36/37  
WHIMS Classification: BD2  
NFPA Ratings (Scale 1-4): Health-1, Fire-3, Reactivity-0

**B. Signal Word:** Danger

**C. Hazard Statement:**

HIGHLY FLAMMABLE LIQUID AND VAPOR, Category 2  
CAUSES SERIOUS EYE IRRITATION, Category 2a  
MAY CAUSE DROWSINESS OR DIZZINESS

**D. Pictograms:**



#### E. **Precautionary Statement:**

No Smoking.  
Keep away from heat, sparks, open flame, and hot surface.  
Ground/Bond container and receiving equipment.  
Use explosion-proof equipment.  
Use non-sparking tools.  
Take precautionary measures against static discharge.  
Wash any exposed skin thoroughly after handling.  
Avoid breathing vapors or mist.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves, eye protection, face protection.

### 3. COMPOSITION INFORMATION and INGREDIENTS

- A. **Main Component:** Acetone; CAS no: 67-64-1, UN1090.
- B. **Mixed Non-Hazardous Component:** Bakelite-type resins which contain less than 1.0 ppm of Vinylchloride Monomer and less than 0.5% of Vinyl Acetate.
- C. **Percentages:** 90% Acetone for Microseal-AC® / 80% Acetone for Microseal DS-AC®.

### 4. FIRST AID MEASURES

#### A. **First Aid Measures:**

**I. General advice:** Move from dangerous area, consult physician, provide SDS to attending medical personnel

**II. If inhaled:** Move person to fresh air, give artificial respiration if not breathing, and consult a physician.

**III. In case of contact with skin:** Apply plenty of water and wash with soap. Remove contaminated clothing. Consult physician.

**IV. In case of eye contact:** Thoroughly and cautiously rinse with water for at least 15 minutes. Consult an ophthalmologist.

**V. If swallowed:** DO NOT induce vomiting. Risk of aspiration. Rinse mouth with water. Consult a physician.

- B. **Symptoms:** Cough, headache, eye and throat irritation, dizziness, dermatitis at levels below 100ppm and at higher levels may cause unconsciousness.
- C. **Treatment:** Minimal toxicity on organ systems. Treatment of severe intoxication (narcosis) from exposure through ingestion or vapors is primarily supportive. If ingestion is recent, removal by gastric lavage or activated charcoal may be prescribed.

### 5. FIRE-FIGHTING MEASURES

- A. **Extinguishing Equipment:** Dry Chemical, Carbon Dioxide, Foam, or Alcohol-type Foam. Do not apply water!
- B. **Advice on Specific Hazards:** Extremely flammable liquid. Emits extremely flammable and explosive vapors when mixed with ambient air. Vapors heavier than air may travel along the floor. May ignite when exposed to sparks, heat, flame or oxidants.
- C. **Special Protective Equipment or Precautions for Firefighters:** PPE Level C recommended. Self-contained breathing apparatus. Keep fire-exposed containers cool using water spray. Remove containers from fire area if it can be done without risk.

## 6. ACCIDENTAL RELEASE MEASURES

- A. Use of Personal Precautions:** Avoid breathing vapors, gases, or mists. Use proper personal protection equipment. Ensure proper ventilation of fumes and vapors if it can be done safely. Remove all sources of ignition. Vapors may travel considerable distance to low-lying ignition sources (vapors are heavier than air). Evacuate to safe area.
- B. Emergency Procedures including instructions for evacuations, consulting experts when needed, and appropriate protective clothing:** Reportable Quantity (RQ): Notify Local Emergency Planning Committee and State Emergency Response Commissions for release greater than or equal to RQ (US SARA Section 304). If release occurs in the US and is reportable under CERCLA Section 103, notify the US National Response Center at (800) 424-8802 or (202) 426-2675.
- C. Cleanup Procedures:**
- I. Air Release:** Reduce vapors with water spray.
- II. Soil Release:** Dig holding area such as pond or pit for containment. Absorb with sand or other non-combustible materials.
- III. Water Release:** Cover with absorbent sheets, spill-control packs, or pillows. Remove trapped material with suction hoses.
- IV. 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.
- V. Small Spills:** Avoid heat, flames, sparks, and other sources of ignition. Take up spilled material with paper towels, water, and detergent and allow to evaporate in fume hood or cupboard. Remove sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Place in non-plastic containers for transportation and disposal according to State, National, and International Waste Regulations.
- VI. Large Spills:** Wear suitable protective equipment. Dike or berm and take up spilled material with inert absorbent material like earth sand or vermiculite. Use non-sparking tools and equipment and avoid ignition sources. Stop spill at source and prevent from entering drains, sewers, streams, or other bodies of water. Prevent from spreading. Isolate hazard area and deny entry. Stay upwind and keep out of low areas. Place in non-plastic containers for transportation and disposal according to State, National, and International Waste Regulations.

## 7. HANDLING & STORAGE

- A. Requirements for Safe Handling:** Avoid contact with skin and eyes. Do not inhale vapors or mists. Use in well-ventilated areas. Do not use contact lenses. Explosion & flameproof engineering controls should be in place. Use non-sparking tools & equipment when necessary. Use techniques to eliminate accumulation of static charge when transferring material.
- B. Recommendations for Safe Storage & Ventilation:** No smoking. Store in cool, dry and well-ventilated area. Avoid direct sunlight. Store in securely closed original containers in an area designed for storage of Flammable Liquids under OSHA 29 CFR 191-0.106. Empty containers may still contain residue and/or vapors and OSHA Hazard Communication Labels may still be required. Store at 59°F to 77°F (15°C to 25°C). Avoid incompatible materials including Acids, Bases, Oxidizers, Nitrogen Fluoride Compounds, Sulfates, Perchlorates, Reducing Agents, and Plastics.

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

## A. Permissible Exposure Limits

**OSHA** • 1910.1000 • Table Z-1 Limits for Air Contaminants • TWA 1000 ppm (2400 mg/m<sup>3</sup>)

**ACGIH** • TLV 500 ppm • 8-hr exposure limit • 750 ppm 15 min STEL

**NIOSH** • IDLH 2500 ppm • REL 250 ppm 10 hr/40 hr week

**TWA** • 250 ppm (590 mg/m<sup>3</sup>)

**B. Appropriate Engineering Controls:** Contents may be under pressure; caution when opening containers. Keep containers closed and in an upright position when not in use. Good ventilation required. Explosion-proof exhaust ventilation should be used (10 air changes per hour). Use process enclosures, exhaust ventilation, or other controls to maintain airborne levels below recommended exposure levels.

**C. Personal Protective Measures:** Wear butyl-rubber, nitrile, or super-nitrile gloves. Use eye protection such as safety glasses, face shield, or goggles. Avoid vapors or mists. Use respiratory protection. Half-face Organic Vapor Filter Respirator Class A1P2 (AS/NZS 1715) if under 2 liters. Positive-pressure air-supplied respiration if there is potential of release and exposure levels are unknown. Long-sleeved and full-length 100% cotton shirt and pants and enclosed safety shoes. Wash hands thoroughly before eating, drinking, smoking, and using toilet. Eyewash station and safety shower should be provided.

## 9. PHYSICAL & CHEMICAL PROPERTIES

**A. Appearance:** Clear, colorless liquid

**B. Odor:** Strong ketone odor

**C. Odor Threshold:** 60 ppm (varies from 4ppm to 600 ppm)

**D. pH:** N/A

**E. Melting Point/Freezing Point:**  
MP: N/A; FP: -139°F (-95°C)

**F. Initial Boiling Point:** 133°F (56°C)

**G. Flash Point:** 4° F (-16° C)

**H. Evaporation Rate:** 5.7 x faster than Butyl Acetate

**I. Flammability:** Flammable Liquid

**J. Upper/Lower Flammability/  
Explosive Limits:** 2.6% to 12.8%  
(26000 ppm to 128000 ppm)

**K. Vapor Pressure:** 200mm HG @ 25°C

**L. Vapor Density:** 2.0 (air=1.0)

**M. Relative Density:** Specific Gravity  
0.82-0.83 for Microseal-AC; 0.84-0.86  
for Microseal DS-AC

**N. Solubility:** Precipitates in water

**O. Partition coefficient:  
n-octanol/water:** N/A

**P. Auto-Ignition Temperature:** 869° F  
(465° C)

**Q. Decomposition Temp:** < 39°F (4° C)

**R. Viscosity:** 4.0-6.0 cP for Microseal-  
AC; 17.0-23.0 cP for Microseal DS/AC  
(water=1)

## 10. STABILITY & REACTIVITY

- A. Reactivity:** Reactive with strong oxidizing agents, sodium and barium hydroxide, halo carbons, nitric acid, chromium trioxide, chromyl chloride, bromine, combustible materials, peroxides, bases, and sodium and barium hydroxide.
- B. Chemical Stability:** Material is stable and will not polymerize at normal temperatures and pressure.
- C. Possibility of Hazardous Reactions:** Violent explosive reaction with chromic anhydride, potassium tert-butoxide, thiosylcol hexachlorophene, and trichloromelamine
- D. Conditions to Avoid:** Heat, flames, sparks, open flames, and confined spaces. Containers may rupture or explode if exposed to heat. Never use near welding or cutting torches.
- E. Incompatible Material:** Acids, chloroform, chromic anhydride, hydrogen peroxide, nitric compounds, and oxidizers.
- F. Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide

## 11. TOXICOLOGIC INFORMATION

- A. Likely routes of exposure:** Inhalation, ingestion, skin, and eyes
- B. Symptoms related to the physical, chemical, and toxicological characteristics:**
  - I. Inhalation:** Dizziness, confusion, muscle weakness, nausea, vomiting, and coma. May effect speech and motor skills when exposed in concentrations over 500 ppm. Concentrations of over 10,000 ppm may cause collapse, coma, and death.
  - II. Skin Contact:** May be harmful if absorbed through skin. May cause redness & dermatitis.
  - III. Eye Contact:** Redness, tearing, inflammation, and possible corneal clouding.
  - IV. Ingestion:** Nausea, vomiting, irritation of mouth and gastrointestinal tract. May effect behavior, sleep times, liver, blood, kidney, bladder, and endocrine systems. Collapse and coma have been reported when ingested in quantities under seven (7) ounces.
- C. Description of short-term, long-term, and chronic exposure effects:**
  - I. Delayed effects from short-term exposure:** May increase urination, thirst, and blood sugar levels after four (4) weeks for up to five (5) months after ingestion.
  - II. Immediate effects from short-term exposure:** May cause irritation of throat and nasal passages from inhaling small amounts under 500 ppm. Flushed cheeks, appearance, or intoxication, unconsciousness, collapse, and coma when ingested in quantities of seven (7) ounces have been reported.
  - III. Chronic effects from short-term exposure:** Produced by the human body and will be primarily expelled through respiration over a short time with no long term health effects.
  - IV. Delayed effects from long-term exposure:** NONE AVAILABLE
  - V. Chronic effects from long-term exposure:** May include dry skin, sleeplessness, nausea, faintness, weight loss, eye irritation, attacks of giddiness, and loss of strength
  - VI. Immediate effects from long-term exposure:** Repeated exposure may cause dry skin and dermatitis.

#### D. Numerical measures of toxicity (LC50/LD50):

**I. Inhalation:** Rat: LD50=50,100 mg/m<sup>3</sup> 4 hr / **Mouse:** LC50=44g/m<sup>3</sup> 4 hr

**II. Ingestion:** Rat: LD50=5800 mg/kg / **Mouse:** LD50=3g/kg

**III. Skin:** Rat: 3g/kg / **Guinea Pig:** LD50=9400 ul/kg

**IV. Eye Contact:** Draize Rabbit: 20mg Severe / **Rabbit:** 20mg/24 hr Moderate

**V. Epidemiology:** Not Available.

**VI. Reproductive Effects:** Paternal Effects: spermatogenesis, including genetic morphology, motility, and count.

**VII. Neurotoxicity:** Not Available.

**VIII. Mutagenicity:** Sex chromosome loss and nondisjunction (Yeast – *Saccharomyces cerevisiae*) – 47,600ppm; Cytogenic analysis (Hamster fibroblast) – 40g/L

**E. Carcinogenic Status:** Under ACGIH, IARC, NTP, and OSHA, no ingredient in this product is present equal to or above 0.1 concentration that would be a confirmed, probably carcinogenic.

## 12. ECOLOGICAL INFORMATION (non-mandatory)

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations. Hazardous Waste Number D035. For concentrations at or above the regulatory level (200mg/L), dispose of in accordance with regulations US EPA 40 CFR 262 and hazardous waste number U159.

## 14. TRANSPORT INFORMATION

- A. **UN Number:** 1090
- B. **UN Proper Shipping Name:** Acetone
- C. **Transport Hazard Class:** 3
- D. **Packing group number:** II (Roman Numeral)
- E. **Label:** Flammable Liquid
- F. **Other:** US DOT 49 CFR 172.101

## 15. REGULATORY INFORMATION (non-mandatory)

## 16. OTHER INFORMATION

- A. **Updated:** 29 February 2016
- B. **Created:** 14 November 2014
- C. 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.

## ADDENDUM: MICROSEAL® GHS Classification Information:

### SECTION 2: HAZARD IDENTIFICATION

#### 2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225

Eye Irrit. 2A H319

STOT SE 3 H336

#### 2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US):



GHS02



GHS07

Signal word (GHS-US): Danger

#### Hazard statements (GHS-US):

H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

#### Precautionary statements (GHS-US):

P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, lighting, ventilating equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P261 - Avoid breathing mist, spray, vapours

P264 - Wash exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear eye protection, face protection, protective clothing, protective gloves

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P312 - Call a POISON CENTER/doctor/.../if you feel unwell

P337+P313 - If eye irritation persists: Get medical advice/attention

P370+P378 - In case of fire: Use dry chemical; powder, alcohol-resistant foam, carbon dioxide (CO2) for extinction

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/container to comply with local, state and federal regulations

P235 - Keep cool

#### 2.4. Unknown acute toxicity (GHS-US)

No data available

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

GHS-US classification

Flam. Liq. 2, H225, Eye Irrit. 2A, H319, STOT SE 3, H336