DIVISION OF MICROLEAK-SEAL IMPREGNANT, INC.

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Material Safety Data Sheets

Microseal-MEK & Microseal-DS-MEK

Microseal-AC & Microseal-DS-AC

Miniseal

Material Safety Data Sheet for Microseal-MEK& Microseal-DS -MEK(both in liquid form)
Revised May 1, 2003(no changes by Nov. 2007)

Section I. Product Identification

Identity (as used on label and list) : Microseal-MEK & Microseal-DS-MEK
Manufacturer's name: Microleak-Seal Impregnant, Inc. D/B/A The Microseal Company
Address: P.O. Box 541, Rome, NY. 13442-0541
Emergency Telephone Number : (315) 337-2720 or 1-800-255-3924 (Chem. Tel. Inc.)

Section II A Hazardous Components

1) **Methyl Ethyl Ketone** * - CAS #78-93-3 ; UN1193
OSHA PEL 200 PPM
ACGIH TLV 200 PPM
Other Limits Recommended : None
* this chemical is subject to the reporting requirements of Section 313 of SARA Title III.

Section II B Non-Hazardous Components

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

Section III. Physical/Chemical Characteristics

Boiling Point : 79.6 degrees C, 175 degrees F @ 760.00mm Hg
Vapor Density (Air = 1): 2.5
Vapor Pressure: 70.00 mm HG @ 68 degrees F (20 degrees C)
Solubility in Water (% by wt. at 20 degrees C): 24
Specific Gravity (H2O=1) at 20/20 degrees C: 0.830-0.840 (for single strength Microseal))
0.860-0.870 (for Microseal-DS)

Evaporation Rate (Butyl acetate = 1): 6.3
Freezing Point: -86.3 degrees C
Volatile Organic Compound (VOC): for Microseal = 6.21 lb/gal.; for Microseal-DS = 5.87 lb/gal.
Appearance & Odor : Clear liquid, Non-residual odor.

Section IV -- Fire and Explosion Hazard Data

Flash point (method used): 23 deg F tag closed cup (-5.0 degrees C)
Flammable Limits (in air, vol %): LEL 1.8 - UEL 10
Explosive Limit (product) lower - 2.0%
Extinguishing Media: Alcohol foam or carbon dioxide or dry chemical
Hazardous Decomposition products: may form toxic materials: hydrogen chloride, carbon dioxide and carbon monoxide and various hydrocarbons may be formed under fire conditions.
Fire Fighting procedures: wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode when fighting fires.
Special Fire and explosion hazards: vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations distant from material handling point.
NEVERuse welding or cutting torch on or near drums (even empty) because product (even just residue) can ignite explosively.
All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred.

NFPA Codes : Health -1 ; Flammability - 3; Reactivity - 0

Section V -- Reactivity Data

Stability: Material is stable.
Conditions to avoid: none
Incompatibility (materials to avoid): Avoid contact with strong oxidizing agents.
Hazardous Polymerization: Cannot occur.

Section VI -- Health Hazard Data

Permissible Exposure level : 200 ppm
Threshold limit value : 200 ppm
Effects of acute overexposure:

- **Eyes** - Can cause sever irritation, redness, tearing, blurred vision
- **Skin -** prolonged or repeated contact can cause moderate irritation, defatting & dermatitis.
- **Breathing -** excessive inhalationof vapors can cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue. nausea, headache and possible unconsciousnessand even death.
- **Swallowing** - can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Carcinogenicity : NO
NTP : NO
ARC Monographs : NO
OSHA Regulated : NO
Signs and symptoms of exposure : Headache, nausea, vomiting
Medical conditions (generally aggravated by exposure): Headaches, nausea, vomiting

First Aid :

If on skin : Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.
If in eyes : flush with large quantities of water, lifting upper and lower lids occasionally. Get medical attention.
If swallowed : Do not induce vomiting, keep person warm, quiet and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.
If breathed : If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped give artificial respiration. Keep person warm, quiet and get medical attention.

Primary route(s) of entry : Inhalation, skin contact.

Section VII -- Spill or Leak Procedures

Steps to be taken in case material is released or spilled:

Small spill : absorb liquid with vermiculite, floor absorbent or other absorbent material and transfer to hood.

Large Spill : Eliminate all sources of ignition. Wear suitable protective equipment. Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams, or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Incinerate in a furnace where permitted under legal regulations.

Waste Disposal method :
RCRA Hazardous Waste No. (40 CFR 261.33): D-035
Small spill : allow volatile portion to evaporate in hood. Allow sufficient time for vapors to completely clear hood duct work. Dispose of remaining material in accordance with applicable regulations.

Large spill : Destroy by liquid incineration. Contaminated absorbent. May be deposited in a landfill in accordance with local state and federal regulations.

Precautions to be taken in handling and storing :
Keep away from heat, sparks and fire. Do not leave container open. Use with adequate ventilation.

Other precautions :
Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with skin. Avoid contact with eyes.

Section VIII -- Protective Equipment to be used

Respiratory Protection : If workplace exposure limit(s) of product or any component is exceeded(see section II), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulation also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposure.

If exposure limit(s) is not exceeded recommended is for sensitive persons: an all purpose canister mask or chemical cartridge respirator.
Ventilation : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(S)
Protective Gloves: Solvent resistant gloves, such as natural rubber or neoprene gloves.
Eye Protection : Chemical splash goggles in compliance with OSHA regulations are advised: however OSHA regulations also permit other type safety glasses. (consult your safety equipment supplier).
Other Protective clothing or equipment : To prevent repeated or prolonged skin contact, wear impervious clothing and boots.
Personal Protection code : G

Section IX -- Special precautions or other comments

Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid and/or solid). All hazard precautions given in the data sheet must be observed.

The information accumulated 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.

Material Safety Data Sheet for Miniseal
a Non-Hazardous Product

Revised May 1, 2003

Section I. Identification of Product

Manufacturer : Microleak-Seal Impregnant, Inc.
Address: P.O. Box 541, Rome, NY. 13442-0541
24 Hr. Emergency Telephone Number : (315)337-2720 or 1-800-255-3924 (Chem. Tel. Inc.)
Sales Name: Miniseal
Chemical Name : Aqueous solution of sodium salt of silicic acid and penetrating agent.
DOT Hazard Class : N/A
DOT Shipping Name : N/A

Section II. Physical Data

Appearance & Odor : Liquid, Colorless to hazy. Odorless
Specific Gravity (liquids only): 1.1 - 1.3
Solubility in Water (% by wt.): Complete
Vapor Pressue (mmHg at degrees F, nonaqueous liquids only): N/A
Evaporation Rate (Butyl acetate=100,nonaqueous liquids only): N/A
Solids Content (solutions, dispersions, or pastes only): Within a range of 17-21% by wt.

Boiling Point (degrees F, nonaqueous liquids only): N/A
Vapor Density (nonaqueous liquids only): N/A
pH (aqueous liquids only): 10-12

Section III. Fire and Explosion Hazard Data

Flash point (degrees F): N/A
Flammable Limits (vapor in air, vol %): N/A
Fire Extinguishing Media: N/A
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: N/A

Section IV. Reactivity Data

Stability: Stable
Conditions to avoid: Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.
Incompatibility (Materials to avoid): Gels when mixed with acid.
Hazardous Decomposition Products : Hydrogen

Section V. Spill or Leak Procedures

Spillage:
Small Quantities (less than 100 gal): mop up and flush to sewer with plenty of water.
Large Quantities: Isolate, dike and store discharged material, if possible. Otherwise disperse and flush with water. Observe environmental protection regulations.
Waste Disposal Method:
Small Quantities (less than 100 gal): Flush to sewer with plenty of water.
Large Quantities: Neutralize with dilute acid and landfill solids according to local, state and federal regulations. Flush neutral liquid to sewer with plenty of water.

Section VI. Health Hazard Data

Eye Contact : Causes irritation.
Skin Contact : Causes irritation.
Inhalation: Spray mist may damage respiratory tract.
First Aid Procedures : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call physician. Flush skin with water.
Medical Examinations : N/A

Section VII. Special Protection Information

Respiratory Protection: Use NIOSH approved mist respirator where spray occurs.
Gloves: Rubber where contact likely.
Eye protection : Chemical goggles and/or face shield.
Other Protective Equipment : Safety shower and eyewash fountain should be within direct access.
Personal Hygiene: Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Wash contaminated clothing before re-use.
Engineering Control: N/A.

Section VIII. Substances for which standards have been set.

Single Chemical Substance: N/A
Percent: N/A
Threshold Limit Value: N/A
Exposure Analysis Methods: N/A
Components: N/A
Percent: N/A
Threshold Limit Values: N/A

N/A = Not Applicable