

SPECTRASOL, INC.

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MATERIAL SAFETY DATA SHEET
For
SPECTRASOL
Z-B, CFA-B, CFA-C REAGENTS

Issue Date: 1/2/10

Effective Date: 1/2/10

EMERGENCY TELEPHONE NUMBERS

Spectrasol, Inc.: (845) 987-1300
National Response Center: (800) 424-8802

Chemtrec: (800) 424-9300

I - IDENTIFICATION

PRODUCT NAME: Z-B; CFA-B; CFA-C
CHEMICAL FAMILY: Strong Base
FORMULA: N/A
SYNONYMS: N/A

CHEMICAL NAME: N/A
FORMULA: N/A
MOLE WEIGHT: N/A
CAS #: N/A

II - PHYSICAL DATA

BOILING POINT: 105 °C
VAPOR PRESSURE AT 20 °C: <0.01 mm Hg
SOLUBILITY IN WATER BY WEIGHT: 100% @ 20 °C
APPEARANCE: Clear liquid, mild odor
EVAPORATION WEIGHT (Butyl Acetate= 1): <.01

SPECIFIC GRAVITY: 1.10
VAPOR DENSITY: 5.0

III - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not applicable (aqueous solution).

EXTINGUISHING MEDIA: Apply alcohol-type or all-purpose type foams by manufacturer's recommended techniques for large fires. Use CO₂ or dry chemical media for small fires.

SPECIAL FIRE FIGHTING PROCEDURES: Do not direct a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Use protective clothing, eye protection and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Oxides of nitrogen will be evolved.

IV - HEALTH HAZARD DATA

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING: Moderately toxic. May cause burns of mouth and throat, abdominal pain, nausea, vomiting, diarrhea, dizziness, weakness, thirst, collapse, and possible coma. The nature and severity of these signs and symptoms will be dependent on the amount swallowed.

SKIN ABSORPTION: Prolonged or widespread exposure may result in the absorption of potentially harmful amounts of materials.

INHALATION: Mists and vapors formed from heated solutions may be irritating and cause coughing and discomfort in the nose, throat and chest.

SKIN CONTACT: Brief contact may cause minimal irritation, seen as mild local redness.

EYE CONTACT: May cause irritation, seen as excess redness and swelling of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE: May possibly cause kidney and liver damage.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Because of its irritating properties, this material may aggravate an existing dermatitic. Breathing of vapor and/or mists may aggravate asthma and inflammatory or fibrotic pulmonary disease.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: There are literature reports that ingestion produced nervous system injury in dogs and rats. Heart lesions have also been observed in mice treated dermally and in drinking water. The significance of this effect in humans is not known. Further studies are being planned to better assess the significance of the developmental effects.

OTHER AFFECTS OF OVEREXPOSURE: There are literature reports that skin contact may cause sensitization and an allergic skin reaction in a small proportion of individuals.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING: Do not induce vomiting. Give large quantities of water to dilute material. Call a physician.

SKIN: Remove contaminated clothing and flush skin with plenty of water.

INHALATION: Remove to fresh air. If breathing is difficult, oxygen may be given. Call physician.

EYES: Immediately flush eyes with plenty of water. Get medical attention, preferably an Ophthalmologist, urgently.

NOTES TO PHYSICIAN: The hazards of this material are mainly due to its irritant properties on the skin and mucosal surfaces. There is no specific antidote and treatment should be directed at the control of symptoms and the clinical condition.

V - REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Some decomposition can occur upon vigorous heating; e.g., application of high pressure, steam, or flame.

INCOMPATIBILITY (Materials to avoid): Avoid contamination with strong acids, strong oxidizing agents, aldehydes, ketones, acrylates, organic anhydrides and organic halides.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Burning can produce carbon monoxide and/or carbon dioxide and nitrogen oxides.

HAZARDOUS POLYMERIZATION: Will not occur.

VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Wear suitable protective equipment; avoid contact with liquid and vapors. Larger spills should be collected for disposal.

WASTE DISPOSAL METHOD: Incinerate in a furnace where permitted under appropriate federal, state and local regulations.

VII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): Self-contained breathing apparatus in high-vapor concentrations.

VENTILATION: This product should be confined within covered equipment, in which case general (mechanical) room ventilation is expected to be adequate.

PROTECTIVE GLOVES: PVC-coated or butyl.

EYE PROTECTION: Monogoggles.

OTHER PROTECTIVE EQUIPMENT: Eye bath, safety shower, and chemical apron.

VIII - SPECIAL PRECAUTIONS**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**

WARNING! Harmful if swallowed. Harmful if inhaled or absorbed through skin. Causes eye and skin irritation. Repeated exposure may cause liver and kidney damage. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Avoid breathing vapor.

FOR INDUSTRIAL USE ONLY**OTHER PRECAUTIONS:**

DISPOSAL: Laboratory tests show that low concentrations of the materials can be degraded in a biological wastewater treatment system. It may be feasible to flush a small spill to a sanitary sewer with large amounts of water. However, a large spill might be detrimental to aquatic life. If spilled material cannot be collected, it may be possible to neutralize with dilute hydrochloric acid and then landfill the resulting salt.

WARNING: Ignition may occur at typical elevated-temperature process conditions, especially in process operating under vacuum if subjected to sudden ingress of air, or outside process equipment operating under elevated pressure, if sudden escape of vapors or mists to the atmosphere occurs. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

NOTE:

The opinions expressed herein are those of qualified experts within Spectrasol, Inc. We believe that the Information contained herein is current as of the date of the Material Safety Data Sheet. Since the use of this information and of these opinions and the conditions of use of the product are not within the control of Spectrasol, Inc., it is the user's obligation to determine the conditions of safe use of the product.