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Material Safety Data Sheet

BOOKKEEPER DEACIDIFICATION MIST

Supercedes Issue of: July 19, 2007 REVISION: January 31, 2008

Section 1 - Chemical Product

Product/Chemical Name: BOOKKEEPER DEACIDIFICATION MIST
General Use: Preservation of paper and paper products

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	%wt
Mixture- Methoxy nonafluorobutanes (proprietary)	163702-07-6 & -08-7	>99%
Magnesium Oxide	1309-48-4	<0.5%
Dispersant (proprietary)	proprietary	<0.1%

Ingredient	OSHA PEL TWA	OSHA PEL STEL	ACGIH TLV TWA	ACGIH TLV STEL	NIOSH REL TWA	NIOSH REL STEL	NIOSH IDLH
Methoxynonafluoro butanes	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Magnesium Oxide	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Dispersant	none estab	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

Section 3 - Hazards Identification

☆☆☆☆☆ **Emergency Overview** ☆☆☆☆☆

HMIS
H 1
F 1
R 0
PPE†
†Sec.8

General Physical Form: Colorless, turbid liquid with low odor.
If Product Is In Aerosol Can: Store below 120°F, out of sunlight and away from heat sources. Do not puncture or incinerate. Avoid contact with skin and eyes. Vapor may be harmful. Misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Potential Health Effects

Acute Effects: Not expected to present a hazard when used with good industrial hygiene practices.
Inhalation: Health effects from inhalation are not expected unless product is over heated and decomposition occurs.

Eye: Contact with the eyes during product use is not expected to result in significant irritation.
Skin: Contact with the skin during product use is not expected to result in significant irritation.
Ingestion: Ingestion is not a likely route of exposure to this product. No health effects are expected.

Carcinogenity: IARC, NTP, and OSHA do not list BOOKKEEPER DEACIDIFICATION MIST as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure: None known.
Chronic Effects: None known.

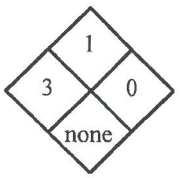
Section 4 - First Aid Measures

Inhalation: If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

Eye Contact: Immediately flush eyes with large amounts of clean water for at least 15 minutes. Call a physician.
Skin Contact: Wash affected area with soap and water.
Ingestion: No need for first aid is anticipated.

Section 5 - Fire-Fighting Measures

Flash Point: None
Flash Point Method: ASTM D3278
Burning Rate: None
Autoignition Temperature: 405 °C
LEL: None
UEL: None
Flammability Classification: Nonflammable
Extinguishing Media: Nonflammable



NFPA

Unusual Fire or Explosion Hazards: Exposure to extreme heat can give rise to thermal decomposition. If product is in aerosol cans, use water spray to cool fire exposed cans since they can rupture violently from heat induced pressure.
Hazardous Combustion Products: Hydrogen fluoride, perfluoroisobutylene
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill/Leak Procedures:
Small Spills: Observe precautions from other sections of this MSDS. Cover spill with inorganic absorbent and place in approved container.
Large Spills
Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Cleanup: Material is not a USA EPA hazardous waste. Dispose of in compliance with local, state, and federal regulations.

Section 7 - Handling and Storage

Handling Precautions: No unusual precautions required.
Storage Requirements: Store under normal warehouse conditions. If product is in aerosol cans, store in area below 120°F. Do not incinerate containers. Always replace overcap when not in use.
Regulatory Requirements: None

Section 8 - Exposure Controls / Personal Protection

Exposure Limits: Ingredient	Value	Unit	Type	Authority Source
Methoxy nonafluorobutanes	750 total all isomers	ppm	TWA	AIHA

Engineering Controls:
Ventilation: Local exhaust - for applications at or above the boiling point, use local exhaust ventilation with minimum capture velocity of 50 linear feet/minute.
Respiratory Protection: None when used at ordinary room temperatures with sufficient locat exhaust ventilation to maintain air borne concentrations at recognized health and safety levels. As good industrial hygiene practice avoid prolonged breathing of vapors. If material is at or above boiling point, thermal decomposition products may be present. In this case, an OSHA approved air supplied respirator should be used.
Protective Clothing/Equipment: Protective gloves, boots, or aprons are not required at ordinary temperatures. Wear protective eyeglasses or chemical safety goggles, per OSHA eye regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, and washing facilities available in work area.
Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance and Odor: Colorless, turbid liquid with low odor.
Vapor Pressure: 195 mm Hg approx. at 68°F (20 °C)
Vapor Density (Air=1): 9 approx.
Density: 1.5 g/ml @25°C
Specific Gravity (H_2O=1, at 4 °C): 1.5
pH: Not applicable

Water Solubility: Insoluble
Boiling Point: 60°C approx.
Freezing/Melting Point: -135°C approx.
Viscosity: 0.7 centipoise @20°C approx.
Refractive Index: Not available
Surface Tension: Not available
Volatile Organics (voc): Exempt 0 g/l
Evaporation Rate: >1.0 (BuOAc=1)

Section 10 - Stability and Reactivity

Stability: BOOKKEEPER DEACIDIFICATION MIST is stable at room temperature in closed containers under normal storage and handling conditions.
Polymerization: Hazardous polymerization cannot occur.
Chemical Incompatibilities - Conditions to Avoid: Finely divided metals, alkali and alkaline earth metals.
Hazardous Decomposition Products: Thermal oxidative decomposition of BOOKKEEPER DEACIDIFICATION MIST can produce hydrogen fluoride and perfluoroisobutylene.

Section 11 - Toxicological Information

Toxicity Data:
Based on Manufacturer's Reports

Eye Effects: Non irritating

Skin Effects: Minimally irritating

Mutagenicity: Not a mutagen in reverse mutation or chromosomal aberration assay.

(The above from manufacturer's reports)

Acute Inhalation Effects:
Rats, inhalation, TC_{Lo}: >100,000 ppm
Acute Oral Effects:
Rat, oral, LD_{50}: >5 grams/kg
Chronic Effects: None known
Carcinogenicity: None known

Teratogenicity: None known

Section 12 - Ecological Information

Ecotoxicity: Fathead minnow (pimephales promelas) 96-hr LC50: >7.9 mg/l
Water flea (daphnia magna) 48 -hr EC50: >10 mg/l
(The above from manufacturer's reports)

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations. As a disposal alternate, incinerate in the presence of a combustible material in an industrial or commercial facility capable of handling halogenated waste. Reclamation of product is recommended if feasible. An aerosol container that does not contain a significant amount of liquid would meet the definition of scrap metal (40CFR 261.1(c)(6), and would be exempt from RCRA regulation under 40CFR 261.6(a)(3)(iv) if it is to be recycled. If containers are not recycled they must be managed under all applicable RCRA & state regulations.
Disposal Regulatory Requirements: Since regulations vary, consult applicable regulations or authorities before disposal. Not U.S. EPA Hazardous.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Transportation Information:
This product is not regulated - all transportation modes - ***unless*** product is in aerosol cans.

Aerosol Cans:DOT HM 181
Shipping Name: Consumer Comm.
Hazard Class: ORM-D

Section 15 - Regulatory Information

EPA Regulations:
RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)- Not USEPA hazardous

RCRA Hazardous Waste Classification : Not classified- Not a US EPA hazardous material
EPCRA HAZARD CLASS:
FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: No CHRONIC: No
SARA 311/312 Codes:
SARA Toxic Chemical (40 CFR 372.65): Not listed
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

The components of this product are in compliance with the chemical registration requirements of TSCA, ELINCS, MITI, AICS. KECI, PICCS, CICS, CEPA.

OSHA Regulations:
Air Contaminant (20 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

Section 16 - Other Information

Prepared By: Robert Gaydos
Revision Notes: 1/31/2008
Changes in Sections 2,3, (In Revision 1/31/2008)

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