(Material) Safety Data Sheet

BOOKKEEPER DEACIDIFICATION SPRAY

SDS Number: Bookkeeper Deacidification Spray
Revision Date: 22 March 2017

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer
Preservation Technologies, L.P.
111 Thomson Park Drive
Cranberry, Twp., PA 16066

Phone: 724-779-2111
Fax: 724-779-9808

Product Name: BOOKKEEPER DEACIDIFICATION SPRAY
Revision Date: 5/27/15
SDS Number: Bookkeeper Deacidification Spray
Common Name: Bookkeeper Deacidification Spray
Product Code: Bookkeeper Deacidification Spray
Product Use: Preservation of paper and paper products.

(24 hours M-F), Emergency (US): (724)-779-2111 or 1-800-416-2665

In Europe:
Preservation Technologies B.V., Pluim-Es 18, 2925 CM Krimpen aan den IJssel, Netherlands; Tel: +31 (0) 180 521188, Fax +31 (0) 180 525400; Emergency +31 (0) 180 521188, +31 (0) 653672024.

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):
NO GHS CLASSIFICATIONS INDICATED

GHS Label elements, including precautionary statements
GHS Signal Word: NONE

GHS Hazard Statements:
NO GHS HAZARD STATEMENTS INDICATED

Hazards not otherwise classified (HNOC) or not covered by GHS

Route of Entry: Eyes; Ingestion; Inhalation; Skin;
Target Organs: Not expected to effect any specific organs.
Inhalation: Health effects from inhalation are not expected unless product is over heated and decomposition occurs.
Skin Contact: Contact with skin during product use is not expected to result in significant irritation.
Eye Contact: Contact with eyes 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.
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NFPA: Health = 3, Fire = 0, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 1, Fire = 0, Physical Hazard = 0

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<table>
<thead>
<tr>
<th>Cas#</th>
<th>%</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1309-48-4</td>
<td>&lt;0.5%</td>
<td>Magnesium oxide (MgO)</td>
</tr>
<tr>
<td>0</td>
<td>&lt;0.1%</td>
<td>Dispersant (Proprietary)</td>
</tr>
<tr>
<td>0</td>
<td>&gt;99%</td>
<td>Methoxynonafluorobutanes (Mixture CAS# 163702-07-6 &amp; 08-7)</td>
</tr>
</tbody>
</table>

4 FIRST AID MEASURES

Inhalation: If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.
Skin Contact: Wash affected area with soap and water.
Eye Contact: Immediately flush eyes with large amounts of clean water for at least 15 minutes. Call a physician.
Ingestion: No need for first aid is anticipated.

5 FIRE FIGHTING MEASURES

Flammability: Not flammable.
Flash Point: None
Autoignition Temp: 405 C
LEL: N/A
UEL: N/A

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.

6 ACCIDENTAL RELEASE MEASURES

For small spills: Observe precautions from other sections of this SDS.
For large spills: Contain by diking far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Material is not a US EPA hazardous waste. Dispose of in compliance with local, state and federal regulations.

7 HANDLING AND STORAGE

Handling Precautions: No usual 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.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust - for applications at or above the boiling point, use local exhaust ventilation with minimum capture velocity of 50 linear feet per minute.

Personal Protective Equipment: None when used at ordinary room temperatures with sufficient local exhaust ventilation to maintain airborne 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.

Exposure Limits: Mixture Methoxy nonafluorobutanes (based on manufacturers reports):

AIHA (TWA)/PEL): 750 ppm
ACGIH (TWA/TLV): Not available.
NIOSH REL: Not available.
NIOSH IDLH: Not available.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless, turbid liquid.
Physical State: Liquid
Spec Grav./Density: 1.5
Viscosity: 0.7 centipoise at 20 C
Boiling Point: 60 C approx.
Flammability: Not flammable.
Vapor Pressure: 195 mm Hg @ 68 C
pH: Not applicable.
Evap. Rate: >1.0 (n-butyl acetate = 1)
Odor: Mild.
Solubility: Insoluble in water.
Percent Volatile: 99%
Freezing/Melting Pt.: -135 C approx.
Flash Point: None
Vapor Density: 9 approx. (air = 1)
VOC: 0 g/l (exempt solvent)
Auto-Ignition Temp: 405 C

10 STABILITY AND REACTIVITY

Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid: High temperatures.
Materials to Avoid: Finely divided metals, alkali and alkaline earth metals.
Hazardous Decomposition: Thermal oxidative decomposition of this product can produce hydrogen fluoride and perfluorisobutylene.
Hazardous Polymerization: Will not occur.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity: Methoxy nonafluorobutanes (based on manufacturers reports):

Oral (LD 50): >5 g/kg, rat
Inhalation (LC 50): >1,000 mg/l, rat
Dermal (LD 50): no information available.

Toxicity Data:

Eye Effects: Non-irritating under normal use. Vapors from heated material may cause irritation.
Skin Effects: Minimally irritating.
Acute Inhalation Effects: Not Known.
Chronic Effects: Not Known.
ECOLOGICAL INFORMATION

Chemical Name: Methoxy nonafluorobutanes (based on manufacturers reports).

Acute Toxicity:
Fish: LC-50 (fathead minnow, 96 h): >7.9 mg/l
Aquatic Invertebrates: EC-50 (water flea, 48 h): >10 mg/l.

Persistence and degradability:
Biodegradation: No data available.
BOD: No data available.
COD: No data available.

Bioaccumulation Potential: No data available.

Mobility in Soil: No data available.

DISPOSAL CONSIDERATIONS

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 wastes. 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.

Disposal Regulatory Requirements: Since regulations vary, consult applicable regulations or authorities before disposal. Not US EPA hazardous.

TRANSPORT INFORMATION

DOT Class: Not Regulated
This product is Non-Regulated in all transportation modes except as packaged in aerosol cans.

Aerosol Cans:
DOT HM-181
Consumer Comm.
ORM-D

REGULATORY INFORMATION

Component (CAS#) [%] - CODES
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Methoxy nonafluorobutanes, Mixture (163702-07-6 & 08-7) [>99%] TSCA, DSL
Magnesium Oxide (MgO) (1309484 <0.5%) MASS, OSHAWAC, PA, TSCA, TXAIR, DSL
Dispersant (Proprietary, <0.1%), TSCA, DSL
Regulatory CODE Descriptions

TSCA = Toxic Substances Control Act
DSL = Canadian Domestic Substances List
MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TXAIR = TX Air Contaminants with Health Effects Screening Level.

OTHER INFORMATION

The information in this SDS is believed to be correct and the best currently available to us. However, PTLP makes no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.