

# MATERIAL SAFETY DATA SHEET

## SECTION I - MATERIAL IDENTIFICATION AND USE

|   |  |                                  |
|---|--|----------------------------------|
| <b>PRODUCT IDENTIFIER:</b> <i>MM-3000LP</i>       | <b>MANUFACTURER'S NAME &amp; ADDRESS:</b><br>Circul-Aire Inc.<br>3999 Cote Vertu<br>Montreal, Quebec<br>Canada H4R 1R2 | <b>CIRCUL-AIRE®</b>              |
| <b>TRADE NAME:</b> <i>MM-3000LP</i>               |  |                                  |
| <b>CHEMICAL IDENTITY:</b> <i>Activated carbon</i> | <b>TELEPHONE NO.:</b> (1) 514-337-3331   | <b>FAX NO.:</b> (1) 514-336-3023 |
| <b>SYNONYMS:</b> <i>MM-3000LP</i>                 | <b>SUPPLIER'S NAME &amp; ADDRESS:</b>  |                                  |
| <b>CHEMICAL FORMULA:</b> <i>C</i>                 | Circul-Aire Inc.<br>3999 Cote Vertu<br>Montreal, Quebec<br>Canada H4R 1R2  |                                  |
| <b>CHEMICAL FAMILY:</b> <i>N/A</i>                | <b>EMERGENCY TELEPHONE NO.:</b> (1) 514-337-3331   |                                  |
| <b>MATERIAL USE:</b> <i>Air purification</i>      | <b>MOLECULAR WEIGHT:</b> <i>12</i>   |                                  |

## SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

| Hazardous Ingredients   | Approximate Concentrations % | C.A.S. N.A. or U.N. Numbers | "Exposure Limits" | LD <sub>50</sub> / LC <sub>50</sub><br>Specify Species & Route |
|-------------------------|------------------------------|-----------------------------|-------------------|--|
| <i>Activated Carbon</i> | <i>100%</i>                  | <i>7440-44-0</i>            | <i>N/A</i>        | <i>LD50&gt;10g/kg<br/>Oral - RAT</i>                           |

## SECTION III - PHYSICAL DATA FOR MATERIAL

|  |   |                                       |   |
|--|---|---------------------------------------|---|
| Physical State<br>Gas <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input checked="" type="checkbox"/> | Odor and Appearance<br><i>Odorless black granules</i> | Odor Threshold (p.p.m.)<br><i>N/A</i> | Specify Gravity<br><i>Packed Density .4 - .5 g/cc</i> |
| Vapor Pressure (mm)<br><i>N/A</i>  | Vapor Density (Air=1)<br><i>N/A</i>                   | Evaporation Rate<br><i>N/A</i>        | Boiling Point (°C)<br><i>N/A</i>                      |
| Solubility in Water (20°C)<br><i>Insoluble</i>   | % Volatile (by volume)<br><i>N/A</i>                  | pH<br><i>8.9</i>                      | Freezing Point (°C)<br><i>N/A</i>                     |
|  |   |                                       | Coefficient of water/oil distribution<br><i>N/A</i>   |

## SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

|  |   |   |   |
|--|---|---|---|
| Flammability<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  | If yes, under which conditions:<br><i>Ignition temperature &gt; 400°C</i>           |   |   |
| Means of Extinction<br><i>If involved in fire, flood with plenty of water.</i>   |   |   |   |
| Special Procedures<br><i>Since wet activated carbons adsorb oxygen, do not enter a closed area without using a self-contained breathing apparatus.</i> |   |   |   |
| Flashpoint (°C) and Method<br><i>N/A</i>   | Upper explosion limit (% by volume)<br><i>N/A</i>                                   | Lower explosion limit (% by volume)<br><i>N/A</i> |   |
| Auto Ignition Temperature (°C)<br><i>N/A</i>   | Hazardous Combustion Products<br><i>CO may be generated in event of combustion.</i> |   |   |
| Explosion Data<br>Sensitivity to Mechanical Impact <i>N/A</i>  | Rate of Burning<br><i>N.D.</i>  | Explosive Power<br><i>N/A</i>                     | Sensitivity to Static Discharge<br><i>N/A</i> |

## SECTION V - REACTIVITY DATA

|  |  |  |  |
|--|--|--|--|
| Chemical Stability<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                  | If no, under which conditions:   |  |  |
| Incompatibility to other substances<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | If so, which ones?<br><i>Strong oxidizers, such as ozone, liquid oxygen and chlorine, etc.</i> |  |  |
| Reactivity and under what conditions<br><i>N/A</i>   |  |  |  |
|  |  |  |  |
| Hazardous Decomposition Products<br><i>Carbon monoxide may be generated in the event of fire.</i>          |  |  |  |
|  |  |  |  |

**MATERIAL NAME/IDENTIFIER: MM-3000LP**

**SECTION VI - TOXICOLOGICAL PROPERTIES OF PRODUCT**

Route of Entry  Skin Contact  Skin Absorption  Eye Contact  Inhalation Acute  Inhalation Chronic  Ingestion

Effects of Acute Exposure to Product  
*N/A*

Effects of Chronic Exposure to Product  
*N.D.*

|   |                                    |  |
|---|------------------------------------|--|
| LD <sub>50</sub> of Product (Specify Species and Route)<br><i>Acute oral non-toxic through ingestion, &gt;10 g/kg (RAT)</i> | Irritancy of Product<br><i>N/A</i> | Exposure Limits of Product<br><i>N/A</i> |
|---|------------------------------------|--|

|  |   |                                     |
|--|---|-------------------------------------|
| LC <sub>50</sub> of Product (Specify Species)<br><i>&gt; 64.4 mg/l (RAT)</i> | Sensitization to Product<br><i>None</i> | Synergistic Materials<br><i>N/A</i> |
|--|---|-------------------------------------|

Carcinogenicity  Reproductive effects  Teratogenicity  Mutagenicity  
*N/A*

**SECTION VII - PREVENTIVE MEASURES**

Personal Protective Equipment  
*Normal work clothes*

|                                   |  |  |                                  |
|-----------------------------------|--|--|----------------------------------|
| Gloves (Specify)<br><i>Rubber</i> | Respiratory (Specify)<br><i>Particulate mask</i> | Eye (Specify)<br><i>Safety glasses / goggles</i> | Footwear (Specify)<br><i>N/A</i> |
|-----------------------------------|--|--|----------------------------------|

|  |                               |
|--|-------------------------------|
| Clothing (Specify)<br><i>Full clothing</i> | Other (Specify)<br><i>N/A</i> |
|--|-------------------------------|

Engineering Controls (e.g. ventilation, enclosed process, specify)  
*Handle in a well-ventilated area.*

Leak and Spill Procedure  
*Sweep up unused material in refuse container.*

Waste Disposal  
*Dispose of in accordance with all Government regulations.*

Handling Procedures and Equipment *Wet MM-3000LP removes oxygen from air causing a severe hazard to workers inside MM-3000LP vessels and enclosed or confined spaces. Before entering such areas, sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all Government regulations.*

Storage Requirements  
*Store in a closed container in a cool dry area.*

Special Shipping Information

**SECTION VIII - FIRST AID MEASURES**

Skin  
*Wash with soap and water.*

Eye  
*Flush with plenty of water for at least 15 minutes. Consult a physician.*

Inhalation  
*Move to clean air. Consult a physician.*

Ingestion  
*N/A*

General Advice  
*N/A*

**SECTION IX - PREPARATION, DATE OF M.S.D.S.**

Additional Information  
*WHMIS CLASS B*

Sources Used  
*MSDS for activated carbon from Calgon Carbon Corp., Barnebey & Sutcliffe Corp., COH.*

|   |   |                              |
|---|---|------------------------------|
| Prepared by:<br><i>Christopher Flaherty</i> | Telephone Number<br><i>(1) 514-337-3331</i> | Date<br><i>February 2009</i> |
|---|---|------------------------------|

**N/A - NOT APPLICABLE      N.D. - NOT DETERMINED**

**Circul-Aire Inc. requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product, a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.**