

July 1, 2003

Dear Customer:

Under OSHA 1910.1200, The OSHA Hazard Communication Standard, Material Safety Data Sheets are required for all hazardous chemicals, with the exception of certain materials. One exception is for manufactured articles.

Articles as defined in section (c), are "... a manufactured item other than a fluid or particle":

- (i) which is formed to a specific shape or design during manufacture;
- (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
- (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees."

The Canadian WHMIS Regulation contains a similar exclusion for manufactured articles.

Bacharach, Inc. supplies a number of items that meet the definition of "manufactured articles" under both OSHA and WHMIS. The articles include sensor cells, indicator tubes, thermometers containing red spirits, batteries, badges, and cassettes. Attached is a list of Bacharach products found in our catalogs considered as "manufactured articles". Material Safety Data Sheets are NOT required for these articles.

Please contact us if you require any further information.

On behalf of Bacharach,

MSDS Coordinator

99-0147, Rev. 6

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| DESCRIPTION | PART NO. | WHERE USED | WHERE USED |
|--|----------------|------------|------------|
| INDICATOR TUBES | | | |
| Chlorine Tube (Cl ₂) | 19-0162 | 19-0251 | |
| Nitrogen Dioxide Tube (NO ₂) | 19-0156 | 19-0250 | |
| Sulfur Dioxide Tube (SO ₂) | 19-5071 | 19-0248 | |
| Carbon Monoxide Tube (CO) | 19-5015 | 10-5217 | 19-0224 |
| | | 10-5224 | 24-0308 |
| | | 10-8001 | 24-7026 |
| | | 10-8011 | 24-7029 |
| | | 19-0241 | 24-7037 |
| | | | 24-7046 |
| | 19-5010 | 10-5220 | 19-0245 |
| | | 19-0240 | |
| | 19-5002 | 10-5030 | 10-8000 |
| | | 10-5047 | 19-7021 |
| Hydrogen Sulfide Tube (H ₂ S) | 19-5030 | 19-0247 | |
| Carbon Dioxide Tube (CO ₂) | 19-5068 | 10-5220 | 19-0249 |
| SENSORS | | | |
| Oxygen "R" Cell Sensor Assembly | 51-7331 | 51-7326 | 51-7334 |
| | | 51-7200 | 9550-1054 |
| | | 51-7330 | |
| | 24-0108 | 24-7029 | 24-8030 |
| | | 24-7037 | 24-8031 |
| | | 24-7046 | 24-8032 |
| | | 24-8008 | 24-8108 |
| | | 24-8009 | 24-8109 |
| | | 24-8010 | 24-8110 |
| | | 24-8011 | 24-8111 |
| | | 24-8012 | 24-8112 |
| | | 24-8013 | 24-8113 |
| | | 24-8020 | 24-8130 |
| | | 24-8021 | 24-8131 |
| | | 24-8022 | 24-8132 |
| | | | |

| DESCRIPTION | PART NO. | WHERE USED | WHERE USED |
|---|----------------|------------|------------|
| SENSORS (Continued) | | | |
| Oxygen "M" Cell Sensor Assembly | 24-7070 | 24-7048 | 24-7050 |
| | | 24-7049 | |
| | 51-7227 | 51-7220 | 51-8086 |
| | | 51-7258 | 51-8087 |
| Oxygen Sensor Replacement | 51-8072 | 51-8075 | 51-8082/83 |
| | | 51-8076 | 51-8084 |
| | | 51-8077 | 51-8085 |
| | | 51-8078 | 51-8086 |
| | | 51-8079 | 51-8087 |
| | | 51-8080 | 51-8088 |
| | | 51-8081 | 51-8089 |
| Oxygen Sensor Replacement | 24-0815 | | |
| Carbon Monoxide Sensor (0-1000 PPM) | 51-7325 | 51-8298 | |
| Carbon Monoxide Sensor (0-4000 PPM) | 51-7323 | 24-0498 | |
| | | 19-7039 | |
| Carbon Monoxide Replacement Sensor (1000 PPM) | 51-8068 | 51-8076 | 51-8082 |
| | | 51-8077 | 51-8083 |
| | | 51-8078 | 51-8086 |
| | | 51-8079 | 51-8087 |
| Hydrogen Sulfide Sensor Assembly | 51-7319 | 51-8297 | |
| | 51-8297 | 51-8076 | |
| | | 51-8077 | |
| Hydrogen Sulfide Sensor Assembly (0-200 PPM) | 51-7335 | 51-8071 | |
| | | 9550-1063 | |
| | | 9550-1006 | |
| Hydrogen Sulfide Replacement Sensor | 51-8071 | 51-8076 | 51-8082 |
| | | 51-8077 | 51-8083 |
| | | 51-8078 | 51-8084 |
| | | 51-8079 | 51-8085 |
| Nitrogen Dioxide Sensor Assembly | 19-3058 | 19-8001 | |
| | | 24-7078 | |
| | | 24-7080 | |
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| DESCRIPTION | PART NO. | WHERE USED | WHERE USED |
|--|----------------|------------|------------|
| SENSORS (Continued) | | | |
| Sulfur Dioxide Sensor Assembly | 19-3059 | 19-8002 | 24-7080 |
| | | 19-7043 | 24-7082 |
| | | 24-7079 | 24-7083 |
| Nitric Oxide Sensor Assembly | 24-0881 | 24-3027 | 24-8151 |
| Nitrogen Dioxide Sensor Assembly | 24-1027 | 24-3029 | 24-8153 |
| Sulfur Dioxide Sensor Assembly | 24-0998 | 24-3030 | 24-8154 |
| HC Sensor Assembly | 24-1055 | 24-3028 | 24-8152 |
| THERMOMETER | | | |
| Thermometer, Red Spirit (+25° to +120°F) | 12-7012 | 12-0266 | 12-7024 |
| | | 12-0324 | |
| BATTERIES | | | |
| Battery Pack, N/C (TLV) (Ni-Cad) | 23-7354 | 23-7356 | |
| | | | |
| Battery Pack, N/C (STX) (Ni-Cad) | 23-7365 | 23-7368 | |
| Battery Pack, (Ni-Cad) | 51-1221 | 51-7200 | |
| | | 51-1224 | |
| | 51-1941 | 51-7281 | |
| | 51-2075 | 51-7264 | 51-7334 |
| | | 51-7265 | |
| | 04-0029 | 23-7205 | |
| Battery Cell Assembly, (Ni-Cad) | 24-0540 | 24-0537 | |
| | 51-7082 | 51-7086 | |
| Battery Pack Assembly, (Lead-acid) | 51-2368 | 51-7346 | |
| | | 51-2322 | |
| MARKER PENS | | | |
| Red Temperature Pen | 14-0617 | | |
| Red Event Pen | 14-0618 | | |
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| Red Marker Pen | 22-0720 | | |
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| Red Marker Pen | 22-0721 | | |
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| DESCRIPTION | PART NO. | WHERE USED | WHERE USED |
|--------------------------------------|------------------|------------|------------|
| BADGES, CASSETTES, ASSEMBLIES | | | |
| Formaldehyde Badge Assembly | 2701-1290 | 2757-0010 | |
| P-PD Formaldehyde Badge Assembly | 2701-1867 | 2757-0050 | |
| Assembly Absorbent Pack | 2701-1868 | 2701-1290 | 2701-2018 |
| | | 2701-1867 | 2701-2191 |
| Autostep Plus TDI MDI HDI Cassette | 2740-1011 | | |
| Autostep Plus TDI Cassette | 2740-1015 | | |
| Autostep Plus Hydrazine Cassette | 2740-1020 | | |
| Autostep Plus Chlorine Cassette | 2740-1040 | | |
| Autostep Plus Hydrides Cassette | 2740-1060 | | |
| Autostep Plus Acid Gas Cassette | 2740-1090 | | |
| Autostep Plus IPDI Cassette | 2740-1150 | | |
| Phosgene (Type A) Badge Type 1 | 2750-1010 | 2750-1610 | |
| Phosgene (Type B) Badge | 2750-1020 | | |
| Phosgene Badge Type 2 (pk 50) | 2750-1060 | | |
| Phosgene Badge 2 Day (pk 100) | 2750-1070 | | |
| Hydrazine/MMH Badge | 2753-0010 | 2753-0610 | 2753-0710 |
| Assembly Dosimeter UDMH | 2753-5010 | 2753-5610 | |
| TDI Badge | 2755-0010 | 2755-0610 | |
| PPDI Badge | 2755-0030 | 2755-0710 | |
| TDI Starter Kit | 2755-0610 | | |
| Hydrides Badge Starter Kit | 2756-0610 | | |
| Hydrides Badge | 2756-1010 | 2756-0610 | |
| Formaldehyde w/o Analysis | 2757-0010 | | |
| Formaldehyde w/ Analysis | 2757-0050 | | |
| TDI PCM Cassette | 2760-0020 | 2760-0600 | |
| HDI PCM Cassette | 2760-0800 | | |
| Hydrazine PCM Cassette | 2760-0900 | | |
| TDI 700 Cassette | 2770-0010 | | |
| Phosgene 700 Cassette | 2770-0200 | | |
| TDI Tape Cassette | 2772-1010 | | |
| PPDI Tape Cassette | 2772-1018 | | |
| Hydrazine Tape Cassette | 2772-1020 | | |
| Phosgene (A) Red Tape Cassette | 2772-1030 | | |
| Chlorine Tape Cassette | 2772-1040 | | |

| DESCRIPTION | PART NO. | WHERE USED | WHERE USED |
|--|-----------|------------|------------|
| BADGES, CASSETTES, ASSEMBLIES (Continued) | | | |
| Hydrides Tape Cassette | 2772-1060 | | |
| HF/HCL Acid Gas Tape Cassette | 2772-1090 | | |
| Assy. Hydrazine Passive Patch | 2701-2875 | 2754-0010 | |
| Hydrazine Active Patch | 2780-0050 | | |
| Special RIS Cassette | 2772-1098 | | |
| HDI Tape Cassette | 2772-1100 | | |
| Phosgene (B) Blue Tape Cassette | 2772-1110 | | |
| MDI Tape Cassette | 2772-1120 | | |
| NDI Tape Cassette | 2772-1140 | | |
| IPDI Tape Cassette | 2772-1150 | | |
| Test Cards TDI/MDI/NDI | 2780-0010 | 2780-0502 | 2780-0900 |
| | | 2780-0503 | 2780-0902 |
| | | 2780-0700 | 2780-0903 |
| | | 2780-0702 | |
| | | 2780-0703 | |
| Test Cards HDI | 2780-0020 | 2780-0800 | 2780-0803 |
| | | 2780-0802 | |
| Phosgene Tape Cassette | 2790-0060 | | |
| Phosgene (B) Tape Cassette | 2790-1060 | | |
| Hydrazine Tape Cassette | 2791-0060 | | |
| TDI Tape Cassette | 2792-0060 | | |
| PPDI Tape Cassette | 2792-1060 | | |
| NDI Tape Cassette | 2792-2060 | | |
| MDI Tape Cassette | 2792-5060 | | |
| TMXI Tape Cassette | 2792-6060 | | |
| HF / HCL Tape Cassette | 2793-0060 | | |
| HDI Tape Cassette | 2794-0060 | | |
| IPDI Tape Cassette | 2794-2060 | | |
| Hydrides Tape Cassette | 2797-0060 | | |
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