PolyOne

#### MATERIAL SAFETY DATA SHEET GRV-NY-030-SS-Nat

Version Number 1.3 Revision Date 03/20/2014

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| 1. PRODUCT AND COMPANY IDENTIFICATION      |   |  |  |  |  |
|--|---|--|--|--|--|
|  | POLYONE CORPORATION<br>33587 Walker Road, Avon Lake, OH 44012   |  |  |  |  |
| Telephone<br>Emergency telephone<br>number | <ul> <li>1 (440) 930-1000 or 1 (866) POLYONE</li> <li>CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).</li> </ul> |  |  |  |  |
| Product name                               | · GRV-NV-030-SS-Nat   |  |  |  |  |

| Product name  | : GRV-NY-030-SS-Nat       |
|---------------|---------------------------|
| Product code  | : EM10005665              |
| Chemical Name | : Mixture                 |
| CAS-No.       | : Mixture                 |
| Product Use   | : Industrial Applications |
|               |                           |

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No.   | Weight percent |
|------------|-----------|----------------|
| Manganese  | 7439-96-5 | 1 - 5          |
| Chromium   | 7440-47-3 | 10 - 30        |

#### **3. HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

#### POTENTIAL HEALTH EFFECTS

| <b>Routes of Exposure:</b>              | : Inhalation, Ingestion, Skin contact  |
|---|--|
| Acute exposure                          |  |
| Inhalation<br>Ingestion<br>Eyes<br>Skin | <ul> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>May be harmful if swallowed.</li> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>Experience shows no unusual dermatitis hazard from routine handling.</li> </ul> |
| Chronic exposure                        | : Refer to Section 11 for Toxicological Information.   |

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| Medical Conditions<br>Aggravated by Exposure:   | : None known.  |
|---|--|
|   | 4. FIRST AID MEASURES  |
| Inhalation  | : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases o doubt seek medical advice.   |
| Ingestion   | : Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.   |
| Eyes  | : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.   |
| Skin  | : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.  |
|   | 5. FIREFIGHTING MEASURES   |
| Flash point   | : not applicable   |
| Flammable Limits<br>Upper explosion limit<br>Lower explosion limit<br>Auto-ignition temperature<br>Suitable extinguishing media<br>Special Fire Fighting<br>Procedures<br>Unusual Fire/Explosion<br>Hazards | <ul> <li>not applicable</li> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul> |
|   | 6. ACCIDENTAL RELEASE MEASURES   |
| Personal precautions  | : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.   |
| Environmental precautions   | : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.   |
| Methods for cleaning up   | : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.  |
|   | 7. HANDLING AND STORAGE  |
| Handling  | : Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.  |

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| Storage                                  | : | Keep containers dry and tightly closed to avoid moisture absorption<br>and contamination. Keep in a dry, cool place.       |  |
|--|---|--|--|
| 8. EXPOSURE CONTROLS/PERSONAL PROTECTION |   |  |  |
| Respiratory protection                   | : | No personal respiratory protective equipment normally required.  |  |
| Eye/Face Protection                      | : | Safety glasses with side-shields   |  |
| Hand protection                          | : | Protective gloves  |  |
| Skin and body protection                 | : | Long sleeved clothing  |  |
| Additional Protective<br>Measures        | : | Safety shoes   |  |
| General Hygiene<br>Considerations        | : | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |  |
| Engineering measures                     | : | Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.             |  |
| Exposure limit(s)                        |   |  |  |

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| Components | Value         | Exposure time                     | Exposure type                 | List:     |
|------------|---------------|-----------------------------------|-------------------------------|-----------|
| Chromium   | 0.5 mg/m3     | Time Weighted Average (TWA):      | as Cr                         | ACGIH     |
|            | 0.5 mg/m3     | Recommended exposure limit (REL): | as Cr                         | NIOSH     |
|            | 1 mg/m3       | PEL:                              | as Cr                         | OSHA Z1   |
|            | 1 mg/m3       | Time Weighted Average (TWA):      |                               | OSHA Z1A  |
|            | 0.5 mg/m3     | Time Weighted Average (TWA):      |                               | MX OEL    |
| Manganese  | 0.2 mg/m3     | Time Weighted Average (TWA):      | as Mn                         | ACGIH     |
|            | 1 mg/m3       | Recommended exposure limit (REL): | Fume. as Mn                   | NIOSH     |
|            | 3 mg/m3       | Short Term Exposure Limit (STEL): | Fume. as Mn                   | NIOSH     |
|            | 5 mg/m3       | Ceiling Limit Value:              | Fume. as Mn                   | OSHA Z1   |
|            | 1 mg/m3       | Time Weighted Average (TWA):      | Fume. as Mn                   | OSHA Z1A  |
|            | 3 mg/m3       | Short Term Exposure Limit (STEL): | Fume. as Mn                   | OSHA Z1A  |
|            | 1 mg/m3       | Time Weighted Average (TWA):      | Fume. as Mn                   | MX OEL    |
|            | 0.2 mg/m3     | Time Weighted Average (TWA):      | as Mn                         | MX OEL    |
|            | 3 mg/m3       | Short Term Exposure Limit (STEL): | Fume. as Mn                   | MX OEL    |
|            | 0.02<br>mg/m3 | Time Weighted Average (TWA):      | Respirable fraction. as<br>Mn | ACGIH NIC |
|            | 0.1 mg/m3     | Time Weighted Average (TWA):      | Inhalable fraction. as<br>Mn  | ACGIH NIC |

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility solid
pellets, Slabs
NO PIGMENT
very faint
Not determined
not applicable
insoluble

Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pH : Not applicable

- Not determinedNot established
- : not applicable
- : not applicable
- : not applicable

#### **10. STABILITY AND REACTIVITY**

Stability : The product is stable if stored and handled as prescribed.

Hazardous Polymerization : Will not occur.

:

Conditions to avoid

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To avoid thermal decomposition, do not overheat.

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|--|--|---|--|--|--|
|  |  |   |  |  |  |
| Incompatible Materials   | : Strong acids,  | oxidizing and reducin   | ng agents  |  |  |
| Hazardous decomposition<br>products:Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen<br>(NOx), other hazardous materials, and smoke are all possible.  |  |   |  |  |  |
|  | 11. TOXICOLOG  | ICAL INFORMATIO   | DN   |  |  |
| This mixture has not been evaluher health data for the individual co   |  |   | are effects listed are based on e                    |  |  |
| <u>Toxicity Overview</u><br>This product contains the follow   | wing components w  | hich in their pure form   | have the following characterist                      |  |  |
| CAS-No. C  | Chemical Name  | Effect  | Target Organ   |  |  |
| 7440-47-3 Chrom  | ium  | Systemic effects  | Eyes, Skin, Respiratory system.                      |  |  |
| Chromium 7440-47-3 The<br>may cause skin sensitization a   | bi- and trivalent fo<br>and irritation to the<br>ounds are not consi   | e eyes. No effects have   | e been reported for chromiun<br>a animals or humans. |  |  |
| Chromium 7440-47-3 The<br>may cause skin sensitization a<br>oxide. Chromium (III) compo  | bi- and trivalent fo<br>and irritation to the<br>ounds are not consi   | e eyes. No effects have<br>dered carcinogenic in<br>CAL INFORMATION   | e been reported for chromiun<br>a animals or humans. |  |  |
| Chromium 7440-47-3 The l<br>may cause skin sensitization a<br>oxide. Chromium (III) compo<br>Persistence and degradability   | bi- and trivalent fo<br>and irritation to the<br>ounds are not consi<br><u>12. ECOLOGIC</u><br>: Not readily bi  | e eyes. No effects have<br>dered carcinogenic in<br><u>CAL INFORMATION</u><br>odegradable.<br>e not readily available a   | e been reported for chromiun<br>a animals or humans. |  |  |
| Chromium 7440-47-3 The l<br>may cause skin sensitization a<br>oxide. Chromium (III) compo<br>Persistence and degradability<br>Environmental Toxicity   | bi- and trivalent fo<br>and irritation to the<br>ounds are not consi<br>12. ECOLOGIC<br>: Not readily bi<br>: Chemicals are<br>polymer matri   | e eyes. No effects have<br>dered carcinogenic in<br>CAL INFORMATION<br>odegradable.<br>e not readily available a<br>ix.<br>e not readily available a  | e been reported for chromiun<br>a animals or humans. |  |  |
| Chromium 7440-47-3 The l<br>may cause skin sensitization a<br>oxide. Chromium (III) compo<br>Persistence and degradability<br>Environmental Toxicity<br>Bioaccumulation Potential  | bi- and trivalent fo<br>and irritation to the<br>ounds are not consi<br>12. ECOLOGIC<br>: Not readily bi<br>: Chemicals are<br>polymer matri<br>: Chemicals are  | e eyes. No effects have<br>dered carcinogenic in<br><u>CAL INFORMATION</u><br>odegradable.<br>e not readily available a<br>ix.<br>e not readily available a<br>ix.  | e been reported for chromiun<br>a animals or humans. |  |  |
| Additional Health Hazard Inf<br>Chromium 7440-47-3 The I<br>may cause skin sensitization a<br>oxide. Chromium (III) compo<br>Persistence and degradability<br>Environmental Toxicity<br>Bioaccumulation Potential<br>Additional advice | bi- and trivalent fo<br>and irritation to the<br>ounds are not consi<br>12. ECOLOGIC<br>: Not readily bi<br>: Chemicals are<br>polymer matri<br>: Chemicals are<br>polymer matri<br>: not applicable   | e eyes. No effects have<br>dered carcinogenic in<br><u>CAL INFORMATION</u><br>odegradable.<br>e not readily available a<br>ix.<br>e not readily available a<br>ix.  | e been reported for chromiun<br>a animals or humans. |  |  |
| Chromium 7440-47-3 The I<br>may cause skin sensitization a<br>oxide. Chromium (III) compo<br>Persistence and degradability<br>Environmental Toxicity<br>Bioaccumulation Potential  | <ul> <li>bi- and trivalent for and irritation to the bunds are not considered and irritation to the bunds are not considered are not considered are not considered are not readily bited.</li> <li>Chemicals are polymer matrix</li> <li>Chemicals are polymer matrix</li> <li>chemicals are polymer matrix</li> <li>not applicable</li> <li>13. DISPOSAL</li> <li>Like most the possible recycle generator of we classification,</li> </ul> | e eyes. No effects have<br>dered carcinogenic in<br><u>CAL INFORMATION</u><br>odegradable.<br>e not readily available a<br>ix.<br>e not readily available a<br>ix.<br><u>CONSIDERATIONS</u><br>rmoplastic plastics the<br>cling is preferred to dis<br>vaste material has the r | e been reported for chromiun<br>a animals or humans. |  |  |

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|--|--------|--|------------------------------------|-------------------|-------------------|---------------------------|
|  |        |  |                                    |                   |                   |                           |
| U.S. DOT Classification  | :      | Not regulated for transp               | ortation.                          |                   |                   |                           |
| ICAO/IATA  | :      | Refer to specific regulat              | ion.                               |                   |                   |                           |
| IMO/IMDG (maritime)  | :      | Refer to specific regulat              | ion.                               |                   |                   |                           |
|  | 15     | . REGULATORY INFO                      | ORMATIO                            | N                 |                   |                           |
| US Regulations:  |        |  |                                    |                   |                   |                           |
| OSHA Status  | :      | Classified as hazardous                | based on co                        | omponen           | ts.               |                           |
| TSCA Status  | :      | All components of this TSCA Inventory. | product are                        | listed on         | or exen           | npt from the              |
| US. EPA CERCLA Hazardous   | s Sub  | stances (40 CFR 302)                   |                                    |                   |                   |                           |
| not applicable   |        |  |                                    |                   |                   |                           |
|  |        |  |                                    |                   |                   |                           |
| 65<br>SARA Title III Section 302 Ex  | xtrem  | elv Hazardous Substance                |                                    |                   |                   |                           |
|  |        | -                                      | :                                  | n Nat Ar          | -1:h1-            |                           |
| Unless specific chemicals are  | Identi | fied under this section, th            | is product i                       | s Not Ap          | plicable          | under this regula         |
|  |        | Chemicals:                             |                                    |                   |                   |                           |
| SARA Title III Section 313 To<br>Unless specific chemicals are<br>Chemical Name                                |        | fied under this section, th            |                                    |                   | *                 |                           |
|  |        | fied under this section, th            | is product i<br>CAS-No<br>7440-47- | ).                | *                 | percent                   |
| Unless specific chemicals are<br>Chemical Name<br>CHROMIUM<br>Canadian Regulations:                            | identi |  | CAS-No                             | ).                | Weight            | percent                   |
| Unless specific chemicals are<br>Chemical Name<br>CHROMIUM   | identi |  | CAS-No<br>7440-47-                 | 0.<br>3<br>Weight | Weight<br>10.00 · | percent                   |
| Unless specific chemicals are<br>Chemical Name<br>CHROMIUM<br>Canadian Regulations:<br>National Pollutant Rele | identi | nventory (NPRI)                        | CAS-No<br>7440-47-                 | ).<br>3           | Weight<br>10.00   | percent<br>- 30.00        |

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| WHMIS Ingredient Dis              | WHMIS Ingredient Disclosure List |   |  |  |
|-----------------------------------|----------------------------------|---|--|--|
| CAS-No.<br>7440-47-3<br>7439-96-5 |                                  |   |  |  |
| DSL                               | :                                | All components of this product are on the Canadian Domestic<br>Substances List (DSL) or are exempt. |  |  |
| National Inventories:             |                                  |   |  |  |
| Australia AICS                    | :                                | Listed  |  |  |
| China IECS                        | :                                | Listed  |  |  |
| Europe EINECS                     | :                                | Listed  |  |  |
| Japan ENCS                        | :                                | Not determined  |  |  |
| Korea KECI                        | :                                | Listed  |  |  |
| Philippines PICCS                 | :                                | Listed  |  |  |
|                                   |                                  | 16. OTHER INFORMATION   |  |  |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.