## MATERIAL SAFETY DATA SHEET Pebax 7233SA01 30% BaSO4-NEU

NEU

Version Number 1.1 Revision Date 03/29/2014 Page 1 of 6 Print Date 4/7/2014

| NEU Specialty Engineered 1<br>15 Corporate Drive, North 1  |  |  |  |
|--|--|--|--|
| 15 Corporate Drive, North  | Haven, CI 004  | 13   |  |
| Telephone  |  | 930-1000 or 1 (866) POLY   |  |
| Emergency telephone  |  |  | hrs for spill, leak, fire, exposur   |
| number   | or accid   | lent).   |  |
| Product name   | : Pebax 72   | 233SA01 30% BaSO4-NEU  | J  |
| Product code   | : EM1002   | 23055  |  |
| Chemical Name  | : Mixture  |  |  |
| CAS-No.  | : Mixture  |  |  |
| Product Use  | : Industria  | al Applications  |  |
| 2. COI   | MPOSITION/I  | NFORMATION ON ING  | REDIENTS   |
| Comportent   | -  | CASNo  | Weight persont   |
| Components   | 8  | CAS-No.<br>7727-43-7   | Weight percent<br>30 - 60  |
| Barium sulfate   |  | //2/-43-/  | 30 - 60  |
|  |  |  |  |
|  |  | <u>RDS IDENTIFICATION</u><br>RGENCY OVERVIEW   |  |
| product is based on indi<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed   | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure  | <b>RGENCY OVERVIEW</b><br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical va   | led on the health effects of this<br>and and potential for hazardous<br>leased upon heating and the end-<br>entilation, respiratory protection,  |
| product is based on indi<br>exposure as shipped is n<br>user (fabricator) must ta  | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure  | <b>RGENCY OVERVIEW</b><br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical va   | and and potential for hazardous leased upon heating and the end-   |
| product is based on indi-<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed  | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure  | <b>RGENCY OVERVIEW</b><br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical ve<br>e.   | and and potential for hazardous leased upon heating and the end-   |
| product is based on indi-<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed<br>ENTIAL HEALTH EFFEC<br>Routes of Exposure:  | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure<br><b>CTS</b><br>: Inhalatio   | <b>RGENCY OVERVIEW</b><br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical v<br>e.  | and and potential for hazardous leased upon heating and the end-   |
| product is based on indi<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed<br>ENTIAL HEALTH EFFEC<br>Routes of Exposure:<br>Acute exposure                                     | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure<br><b>TTS</b><br>: Inhalation<br>: Particulat  | <b>RGENCY OVERVIEW</b><br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical v<br>e.  | and and potential for hazardous<br>leased upon heating and the end-<br>entilation, respiratory protection,   |
| product is based on indi-<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed<br>ENTIAL HEALTH EFFEC<br>Routes of Exposure:<br>Acute exposure<br>Inhalation                      | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure<br><b>TTS</b><br>: Inhalation<br>: Particulat<br>: May be h                          | RGENCY OVERVIEW<br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>precautions (mechanical v<br>e.<br>on, Ingestion, Skin contact<br>tes, like other inert material<br>harmful if swallowed.                                     | and and potential for hazardous<br>leased upon heating and the end-<br>entilation, respiratory protection,   |
| product is based on indi-<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed<br>ENTIAL HEALTH EFFEC<br>Routes of Exposure:<br>Acute exposure<br>Inhalation<br>Ingestion         | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure<br>TTS<br>: Inhalation<br>: Particulat<br>: May be h<br>: Particulat                 | RGENCY OVERVIEW<br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical v<br>e.<br>on, Ingestion, Skin contact<br>tes, like other inert material<br>harmful if swallowed.<br>tes, like other inert material | Ind and potential for hazardous<br>leased upon heating and the end-<br>entilation, respiratory protection,<br>s can be mechanically irritating.  |
| product is based on indi-<br>exposure as shipped is n<br>user (fabricator) must ta<br>etc.) to protect employed<br>ENTIAL HEALTH EFFEC<br>Routes of Exposure:<br>Acute exposure<br>Inhalation<br>Ingestion<br>Eyes | EMER<br>en evaluated as a<br>vidual compone<br>ninimal. Howev<br>ke the necessary<br>es from exposure<br>TTS<br>: Inhalation<br>: Particulat<br>: May be h<br>: Particulat<br>: Experience | RGENCY OVERVIEW<br>a whole. Information provid<br>nts. All ingredients are bou<br>yer, some vapors may be rel<br>y precautions (mechanical v<br>e.<br>on, Ingestion, Skin contact<br>tes, like other inert material<br>harmful if swallowed.<br>tes, like other inert material | Ind and potential for hazardous<br>leased upon heating and the end-<br>entilation, respiratory protection,<br>s can be mechanically irritating.<br>s can be mechanically irritating.<br>titis hazard from routine handling |

# MATERIAL SAFETY DATA SHEET Pebax 7233SA01 30% BaSO4-NEU

NEU

Version Number 1.1 Revision Date 03/29/2014 Page 2 of 6 Print Date 4/7/2014

| Inhalation                   | : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases 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 a 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             |  |
| Upper explosion limit        | , not applicable   |
|                              | : not applicable   |
| Lower explosion limit        | : not applicable   |
| Auto-ignition temperature    | : not applicable   |
| Suitable extinguishing media | : Carbon dioxide blanket, Water spray, Dry powder, Foam.   |
| Special Fire Fighting        | : Fullface self-contained breathing apparatus (SCBA) used in positive  |
| Procedures                   | pressure mode should be worn to prevent inhalation of airborne contaminants.   |
| Unusual Fire/Explosion       | : Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen   |
| Hazards                      | (NOx), other hazardous materials, and smoke are all possible.  |
|                              | 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  |
| manumig                      | only in areas with appropriate exhaust ventilation.  |
| Storage                      | : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.  |
|                              |  |

NEU Specialty Engineered Materials, LLC.

# MATERIAL SAFETY DATA SHEET Pebax 7233SA01 30% BaSO4-NEU

Version Number 1.1 Revision Date 03/29/2014 Page 3 of 6 Print Date 4/7/2014

NEU

| Respiratory protection   | : N                                | o personal respiratory protect  | ive equipment normally r                                   | equired.  |  |
|--|------------------------------------|---|--|---|--|
| Eye/Face Protection  | : Safety glasses with side-shields |   |  |   |  |
| Hand protection  | : P                                | rotective gloves  |  |   |  |
| Skin and body protection   | : L                                | : Long sleeved clothing   |  |   |  |
| Additional Protective<br>Measures  | : S                                | afety shoes   |  |   |  |
| General Hygiene<br>Considerations  |                                    | andle in accordance with good ractice. Wash hands before by                           |  |   |  |
| Engineering measures   |                                    | eat only in areas with appropr<br>ppropriate exhaust ventilation                      |  | Provide   |  |
| Exposure limit(s)  |                                    |   |  |   |  |
| Components   | Value                              | Exposure time   | Exposure type  | List:   |  |
| Barium sulfate   | 10 mg/m3                           | Time Weighted Average<br>(TWA):   |  | ACGIH   |  |
|  | 5 mg/m3                            | Recommended exposure<br>limit (REL):  | Respirable.  | NIOSH   |  |
|  | 10 mg/m3                           | Recommended exposure limit (REL):   | Total  | NIOSH   |  |
|  | 5 mg/m3                            | PEL:  | Respirable fraction.                                       | OSHA Z  |  |
|  | 15 mg/m3                           | PEL:  | Total dust.  | OSHA Z  |  |
|  | 5 mg/m3                            | Time Weighted Average (TWA):  | Respirable fraction.                                       | OSHA Z1   |  |
|  | 10 mg/m3                           | Time Weighted Average (TWA):  | Total dust.  | OSHA Z1   |  |
|  | 9. PHYSIC                          | CAL AND CHEMICAL PRO  | OPERTIES   |   |  |
| Form<br>Appearance<br>Colour<br>Odour<br>Melting point/range<br>Boiling Point:<br>Water solubility | : NO I<br>: very<br>: Not o        | ts, Slabs Specif<br>PIGMENT Bulk c<br>faint Vapou<br>letermined Vapou<br>pplicable pH | ic Gravity: Notlensity: Notrr pressure: notrr density: not | applicable<br>determined<br>established<br>applicable<br>applicable<br>applicable |  |
|  | 10. 8                              | TABILITY AND REACTIV  | /ITY   |   |  |
| Stability  | : T                                | he product is stable if stored a  | nd handled as prescribed                                   |   |  |

### NEU Specialty Engineered Materials, LLC.

## MATERIAL SAFETY DATA SHEET Pebax 7233SA01 30% BaSO4-NEU

Version Number 1.1 Revision Date 03/29/2014

Page 4 of 6 Print Date 4/7/2014

NFU

| Hazardous Polymerization         | : | Will not occur.  |
|----------------------------------|---|--|
| Conditions to avoid              | : | To avoid thermal decomposition, do not overheat.   |
| Incompatible Materials           | : | Strong acids, oxidizing and reducing agents  |
| Hazardous decomposition products | : | Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. |

#### **11. TOXICOLOGICAL INFORMATION**

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

<u>Toxicity Overview</u> This product contains the following components which in their pure form have the following characteristics:

| CAS-No.               |               | al Name                                | Effect  | Target Organ   |
|-----------------------|---------------|--|---|--|
| 7727-43-7             | Barium sulfa  | te                                     | Irritant  | Respiratory system.  |
|                       |               |  | Systemic effects                                      | Eyes, Respiratory system.  |
|                       | 12.           | ECOLOGI                                | CAL INFORMATION                                       | 1  |
| Persistence and degra | idability : 1 | Not readily b                          | iodegradable.   |  |
| Environmental Toxic   |               | Chemicals ar                           |   | as they are bound within the   |
| Bioaccumulation Pot   |               | Chemicals ar<br>polymer mat            |   | as they are bound within the   |
| Additional advice     | : 1           | not applicabl                          | e   |  |
|                       | 13.           | DISPOSAL                               | CONSIDERATIONS  | 6  |
| Product               | 1<br>8<br>0   | bossible recy<br>generator of sciences | cling is preferred to dis<br>waste material has the r | product can be recycled. Wher<br>posal or incineration. The<br>esponsibility for proper waste<br>posal in accordance with<br>nd local regulations. |
| Contaminated packag   | I<br>t        | naterial has ransportation             | the responsibility for pr                             | e. The generator of waste<br>oper waste classification,<br>lance with applicable federal,<br>s.  |
|                       | 14.           | TRANSPO                                | <b>RT INFORMATION</b>                                 |  |
| U.S. DOT Classificat  | ion : l       | Not regulated                          | l for transportation.                                 |  |
|                       | . 1           | Refer to spec                          | ific regulation.                                      |  |
| ICAO/IATA             | : 1           | terer to spee                          | ine regulation.                                       |  |

|  |       | Laterials LLC <b>NEU</b>   |
|--|-------|--|
| NEU Specialty Engineered                       | l M   | laterials, LLC.  |
| MATERIAL SAFETY DATA                           |       |  |
| Pebax 7233SA01 30%                             | Ba    |  |
| Version Number 1.1<br>Revision Date 03/29/2014 |       | Page 5 of 6<br>Print Date 4/7/2014   |
|  |       |  |
| IMO/IMDG (maritime)                            | :     | Refer to specific regulation.  |
|  | 15    | . REGULATORY INFORMATION   |
| US Regulations:                                |       |  |
| OSHA Status                                    | :     | Classified as hazardous based on components.   |
| TSCA Status                                    | :     | All components of this product are listed on or exempt from the TSCA Inventory.                  |
| US. EPA CERCLA Hazardous                       | Sub   | stances (40 CFR 302)   |
| not applicable                                 |       |  |
|  |       |  |
| California Proposition<br>65                   | :     | Not applicable   |
| SARA Title III Section 302 Ext                 | rem   | ely Hazardous Substance  |
| Unless specific chemicals are id               | enti  | fied under this section, this product is Not Applicable under this regulation                    |
|  |       |  |
| SARA Title III Section 313 Tox                 | tic C | Chemicals:   |
| Unless specific chemicals are id               | enti  | fied under this section, this product is Not Applicable under this regulation                    |
| Canadian Regulations:                          |       |  |
| National Pollutant Release                     | se Ir | nventory (NPRI)  |
| not applicable                                 |       |  |
| WHMIS Classification                           | :     | Not controlled.  |
| DSL  | :     | All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt. |
| National Inventories:                          |       |  |
| Australia AICS                                 | :     | Listed   |
| China IECS                                     | :     | Listed   |
| Europe EINECS                                  | :     | Listed   |
|  |       |  |

| NEU S | Specialty | Engineered | Materials.     | LLC. |
|-------|-----------|------------|----------------|------|
|       | pecienty  | Buguneerea | 1110000100005, | LLC. |

### MATERIAL SAFETY DATA SHEET Pebax 7233SA01 30% BaSO4-NEU

Version Number 1.1 Revision Date 03/29/2014

|       | P    | age | 6 <b>of</b> | 6  |
|-------|------|-----|-------------|----|
| Print | Date | 4/7 | /201        | 14 |

| Japan ENCS        | : | Not determined |
|-------------------|---|----------------|
| Korea KECI        | : | Listed         |
| Philippines PICCS | : | Not determined |

### **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.