MATERIAL SAFETY DATA SHEET PELLETHANE 2383-80AE POLYURETHANE POWDER

Version Number 1.1 Revision Date 03/23/2014 Page 1 of 5 Print Date 3/31/2014

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| Telephone Emergency telephone number | : | 1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
|-------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------|
| Product name Product code Chemical Name CAS-No. Product Use | :: | PELLETHANE 2383-80AE POLYURETHANE POWDER CC10142581 Mixture Mixture Industrial Applications |

2. COMPOSITION/INFORMATION ON INGREDIENTS

There are no known hazardous components above regulatory thresholds in this product.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

| Routes of Exposure: | : Inhalation, Skin contact, Ingestion | |
|-----------------------------------------------|--------------------------------------------------------------------------------|--|
| Acute exposure | | |
| Inhalation | : Resin particles, like other inert materials, can be mechanically irritating. | |
| Ingestion | : May be harmful if swallowed. | |
| Eyes | : Particulates, like other inert materials can be mechanically irritating. | |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. | |
| Chronic exposure | : Refer to Section 11 for Toxicological Information. | |
| Medical Conditions Aggravated by Exposure: | : None known. | |



MATERIAL SAFETY DATA SHEET PELLETHANE 2383-80AE POLYURETHANE POWDER

Version Number 1.1 Revision Date 03/23/2014 Page 2 of 5 Print Date 3/31/2014

| | 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 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 |
| Lower explosion limit | : not applicable |
| Auto-ignition temperature | : Not relevant |
| Suitable extinguishing media | : Carbon dioxide blanket, Water spray, Dry powder, Foam. |
| Special Fire Fighting Procedures | : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. |
| Unusual Fire/Explosion Hazards | : Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. |
| | 5. 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. |
| Storage | : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place. |

2/5

PolyOne

MATERIAL SAFETY DATA SHEET PELLETHANE 2383-80AE POLYURETHANE POWDER

Version Number 1.1 Revision Date 03/23/2014

Page 3 of 5 Print Date 3/31/2014

| | OSURE CONTROLS/PERS | SONAL PROTECTION | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Respiratory protection | | y protective equipment normally required. If wear appropriate respiratory protection. | |
| Eye/Face Protection | : Safety glasses with side-shields | | |
| Hand protection | : Protective gloves. Refe | Protective gloves. Refer to equipment supplier to ensure protection. | |
| Skin and body protection | : Long sleeved clothing | Long sleeved clothing | |
| Additional Protective Measures | : Safety shoes | | |
| General Hygiene 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) | | | |
| | | | |
| There are no known hazardou | s components above regulator | y thresholds in this product. | |
| | | · 1 | |
| 0 | | | |
| 9. | PHYSICAL AND CHEMIC | | |
| | | CAL PROPERTIES | |
| Form | : solid | Evapouration rate : Not applicable | |
| Form Appearance | | Exacouration rate Not applicable Specific Gravity Not applicable | |
| Form Appearance Colour | : solid : powder, granular : WHITE | Evapouration rate Not applicable Specific Gravity Not applicable Bulk density Not determined | |
| Form Appearance Colour Odour | : solid : powder, granular : WHITE : very faint | Evapouration rate : Not applicable Specific Gravity : Not applicable Bulk density : Not determined Vapour pressure : not applicable | |
| Form Appearance Colour Odour Melting point/range | solid powder, granular WHITE very faint Not determined | Evapouration rate: Not applicableSpecific Gravity: Not applicableBulk density: Not determinedVapour pressure: not applicableVapour density: not applicable | |
| Form Appearance Colour Odour Melting point/range Boiling Point: | solid powder, granular WHITE very faint Not determined not applicable | Evapouration rate : Not applicable Specific Gravity : Not applicable Bulk density : Not determined Vapour pressure : not applicable | |
| Form Appearance Colour Odour Melting point/range Boiling Point: | solid powder, granular WHITE very faint Not determined | Evapouration rate: Not applicableSpecific Gravity: Not applicableBulk density: Not determinedVapour pressure: not applicableVapour density: not applicable | |
| Form Appearance Colour Odour Melting point/range Boiling Point: | solid powder, granular WHITE very faint Not determined not applicable | Evapouration rate Specific Gravity: Not applicable : Not applicableBulk density Vapour pressure PH: Not determined : not applicable : not applicable : not applicable | |
| Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility | solid powder, granular WHITE very faint Not determined not applicable insoluble 10. STABILITY AND R | Evapouration rate Specific Gravity: Not applicable : Not applicableBulk density Vapour pressure PH: Not determined : not applicable : not applicable : not applicable | |
| Form Appearance Colour Odour | solid powder, granular WHITE very faint Not determined not applicable insoluble 10. STABILITY AND R | Evapouration rate : Not applicable Specific Gravity : Not applicable Bulk density : Not determined Vapour pressure : not applicable Vapour density : not applicable pH : not applicable EACTIVITY | |
| Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility Stability | solid powder, granular WHITE very faint Not determined not applicable insoluble 10. STABILITY AND R The product is stable if Will not occur. | Evapouration rate : Not applicable Specific Gravity : Not applicable Bulk density : Not determined Vapour pressure : not applicable Vapour density : not applicable pH : not applicable EACTIVITY Estored and handled as prescribed. mposition, do not overheat. Keep away from | |
| Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility Stability Hazardous Polymerization Conditions to avoid | solid powder, granular WHITE very faint Not determined not applicable insoluble 10. STABILITY AND R The product is stable if Will not occur. To avoid thermal decoroxidizing agents and operation | Evapouration rate : Not applicable Specific Gravity : Not applicable Bulk density : Not determined Vapour pressure : not applicable Vapour density : not applicable pH : not applicable EACTIVITY Estored and handled as prescribed. mposition, do not overheat. Keep away from | |
| Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility Stability Hazardous Polymerization | solid powder, granular WHITE very faint Not determined not applicable insoluble 10. STABILITY AND R The product is stable if Will not occur. To avoid thermal decorroridizing agents and operation of the stability of the | Evapouration rate : Not applicable Specific Gravity : Not applicable Bulk density : Not determined Vapour pressure : not applicable Vapour density : not applicable pH : not applicable EACTIVITY F stored and handled as prescribed. mposition, do not overheat. Keep away from pen flame. | |

<u>PolyOne</u>

MATERIAL SAFETY DATA SHEET PELLETHANE 2383-80AE POLYURETHANE POWDER

Version Number 1.1 Revision Date 03/23/2014 Page 4 of 5 Print Date 3/31/2014

There are no known hazardous components above regulatory thresholds in this product.

| | 12. ECOLOGICAL INFORMATION |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Persistence and degradability | : Not readily biodegradable. |
| Environmental Toxicity | : Chemicals are not readily available as they are bound within the polymer matrix. |
| Bioaccumulation Potential | : Chemicals are not readily available as they are bound within the polymer matrix. |
| Additional advice | : no data available |
| | 13. DISPOSAL CONSIDERATIONS |
| Product | : Where possible recycling is preferred to disposal or incineration. Th generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. |
| Contaminated packaging | : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. |
| | 14. TRANSPORT INFORMATION |
| U.S. DOT Classification | : Not regulated for transportation. |
| ICAO/IATA | : Refer to specific regulation. |
| IMO/IMDG (maritime) | : Refer to specific regulation. |
| | 15. REGULATORY INFORMATION |
| US Regulations: | |
| OSHA Status | : There are no known hazardous components above regulatory thresholds in this product. |
| TSCA Status | : All components of this product are listed on or exempt from the TSCA Inventory. |
| US. EPA CERCLA Hazardous | Substances (40 CFR 302) |
| not applicable | |
| | |
| | |
| | |

MATERIAL SAFETY DATA SHEET PELLETHANE 2383-80AE POLYURETHANE POWDER

Version Number 1.1 Revision Date 03/23/2014 Page 5 of 5 Print Date 3/31/2014

California Proposition : Not applicable 65

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

not applicable

WHMIS Classification : Not controlled.

DSL

: All of the components of this product are listed on the Canadian Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL). Quantity use in Canada is restricted by regulations.

National Inventories:

| Australia AICS | : Not determined |
|-------------------|------------------|
| China IECS | : Listed |
| Europe EINECS | : Listed |
| 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.