PolvOne

MATERIAL SAFETY DATA SHEET ALUMINUM 8%

Version Number 1.1 Revision Date 03/26/2014

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| 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 | : | ALUMINUM 8% | | |
| Product code | : | CC10133775 | | |
| Chemical Name | : | Mixture | | |
| CAS-No. | : | Mixture | | |
| Product Use | | Industrial Applications | | |

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight percent |
|------------|-----------|----------------|
| Aluminum | 7429-90-5 | 10 - 30 |

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. | | |

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| Medical Conditions 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 or 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 Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards | not applicable not applicable not applicable Class D special powder against metal fire, Dry chemical. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. Dust containing aluminum powder can be explosive. Do not use a solid water stream as it may scatter and spread fire. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (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 |



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| Storage | : | only in areas with appropriate exhaust ventilation. Keep containers dry and tightly closed to avoid moisture absorption |
| | | and contamination. Keep in a dry, cool place. |
| 8. EX | POSU | RE CONTROLS/PERSONAL PROTECTION |
| Respiratory protection | : | No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection. |
| Eye/Face Protection | : | Safety glasses with side-shields |
| Hand protection | : | Protective gloves. Refer to equipment supplier to ensure protection. |
| Skin and body protection | : | 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) | | |

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| Components | Value | Exposure time | Exposure type | List: |
|------------|----------|--------------------------------------|--|----------|
| Aluminum | 1 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | ACGIH |
| | 10 mg/m3 | Recommended exposure limit (REL): | Total | NIOSH |
| | 5 mg/m3 | Recommended exposure limit (REL): | Respirable. | NIOSH |
| | 5 mg/m3 | Recommended exposure limit (REL): | Welding fume or pyrophoric powder. as Al | NIOSH |
| | 15 mg/m3 | PEL: | Total dust. as Al | OSHA Z1 |
| | 5 mg/m3 | PEL: | Respirable dust. as Al | OSHA Z1 |
| | 15 mg/m3 | Time Weighted Average (TWA): | Total dust. as Al | OSHA Z1A |
| | 5 mg/m3 | Time Weighted Average (TWA): | Respirable dust. as Al | OSHA Z1A |
| | 5 mg/m3 | Time Weighted Average (TWA): | Pyrophoric powder. as Al | OSHA Z1A |
| | 5 mg/m3 | Time Weighted Average (TWA): | Fume. as Al | OSHA Z1A |
| | 5 mg/m3 | Time Weighted Average (TWA): | Welding fume. | MX OEL |
| | 10 mg/m3 | Time Weighted Average (TWA): | Dust. | MX OEL |
| | 5 mg/m3 | Time Weighted Average (TWA): | Pyrophoric powder. | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form:Appearance:Colour:Odour:Melting point/range:Boiling Point::Water solubility:
 - solid
 powder, granular
 GREY
 very faint
 Not determined
 not applicable
 insoluble
- Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not applicable
 Not determined
 Not determined
 not applicable
 not applicable
 not applicable

| | 1(| O. STABILITY AND REACTIVITY | Ī |
|--------------------------|----|--|---|
| Stability | : | The product is stable if stored and handled as prescribed. | |
| Hazardous Polymerization | : | Will not occur. | |
| Conditions to avoid | : | To avoid thermal decomposition, do not overheat. Keep away from oxidizing agents and open flame. | |
| Incompatible Materials | : | Incompatible with acids and bases., Oxidizing agents, Halogenated compounds | |

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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.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

| CAS-No. | Chemical Name | Effect | Target Organ |
|-----------|---------------|------------------|---------------------------------|
| 7429-90-5 | Aluminum | Irritant | Skin, Respiratory system. |
| | | Systemic effects | Eyes, Skin, Respiratory system. |

| 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 Contaminated packaging | Where possible recycling is preferred to disposal or incineration. 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. 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 |

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|---|--|--|---------------------------|-------------------------------|------------------------------------|
| S Regulations: | | | | | |
| OSHA Status | : Classified as has | zardous based on | component | ts. | |
| TSCA Status | : All components TSCA Inventor | s of this product a y. | are listed or | or exem | pt from the |
| S. EPA CERCLA Hazardous | Substances (40 CFR 3 | 302) | | | |
| not applicable | | | | | |
| California Proposition 65 | : Not applicable | | | | |
| ARA Title III Section 302 Ext | tremely Hazardous Su | bstance | | | |
| | | | | | |
| nless specific chemicals are id ARA Title III Section 313 To: | xic Chemicals: | - | _ | - | |
| nless specific chemicals are id | xic Chemicals: dentified under this se | ction, this produc | et is Not Ap No. | plicable | under this reg |
| nless specific chemicals are id ARA Title III Section 313 To: nless specific chemicals are id Chemical Name ALUMINUM (FUME OR D | xic Chemicals: dentified under this se | ction, this produc | et is Not Ap No. | plicable Weight | under this reg |
| nless specific chemicals are in ARA Title III Section 313 To: nless specific chemicals are in Chemical Name ALUMINUM (FUME OR D OR DUST) anadian Regulations: National Pollutant Relea | xic Chemicals: lentified under this se UST)ALUMINUM (F | ction, this production, this production, this production of the second s | t is Not Ap No. 0-5 | plicable Weight 10.00 - | under this reg percent 30.00 |
| nless specific chemicals are in ARA Title III Section 313 To: nless specific chemicals are in Chemical Name ALUMINUM (FUME OR D OR DUST) anadian Regulations: | xic Chemicals: lentified under this se UST)ALUMINUM (F | ction, this produc | et is Not Ap No. | plicable Weight 10.00 - | under this reg |

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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.