PolvOne

MATERIAL SAFETY DATA SHEET 405C METALLIC GREY II

Version Number 1.1 Revision Date 03/21/2014

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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 | : | 405C METALLIC GREY II |
| Product code | : | CC10137022 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight percent |
|--------------------------------|------------|----------------|
| Zinc | 7440-66-6 | 1 - 5 |
| Rutile, antimony chromium buff | 68186-90-3 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 1 - 5 |
| 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: | re: : 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. | |

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| Medical Conditions : None known. | | | |
|---|---|--|--|
| Aggravated by Exposure: | | | |
| | 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 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. | | |

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| 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 moistur and contamination. Keep in a dry, cool place. | | Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place. |
| 8. EXI | 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. |

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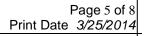
| Components | Value | Exposure time | Exposure type | List: |
|-----------------------------------|-----------|--------------------------------------|--|----------|
| Aluminum | 1 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | ACGIH |
| | 10 mg/m3 | Recommended exposure limit (REL): | 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 |
| Rutile, antimony chromium buff | 0.5 mg/m3 | Recommended exposure limit (REL): | as Cr | NIOSH |
| | 0.5 mg/m3 | PEL: | as Cr | OSHA Z1 |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | ACGIH |
| | 0.5 mg/m3 | Recommended exposure limit (REL): | as Sb | NIOSH |
| | 0.5 mg/m3 | PEL: | as Sb | OSHA Z1 |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | OSHA Z1A |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | MX OEL |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 10 mg/m3 | Time Weighted Average (TWA): | Total dust. | OSHA Z1A |
| | 10 mg/m3 | Time Weighted Average (TWA): | as Ti | MX OEL |
| | 20 mg/m3 | Short Term Exposure Limit (STEL): | as Ti | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| 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 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 | : | 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 |
| 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 |
|------------|------------------|------------------|---------------------------|
| 68186-90-3 | Rutile, antimony | Irritant | Eyes, Skin, Respiratory |
| | chromium buff | | system. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |
| 7429-90-5 | Aluminum | Irritant | Skin, Respiratory system. |
| | | Systemic effects | Eyes, Skin, Respiratory |
| | | | system. |

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

| CAS-No. | Chemical Name | Route | Value | Species |
|-----------|---------------|-----------|-----------|---------|
| 7440-66-6 | Zinc | Oral LD50 | 630 mg/kg | rat |

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

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| CAS-No. | Chemical Nam | ne OSHA | IARC | NTP |
|---|---|--|---|--------------------------|
| 13463-67-7 | Fitanium dioxide | no | 2B | no |
| IARC Carcinogen Classi 1 - The component is car 2A - The component is p 2B - The component is p NTP Carcinogen Classifi 1 - The component is kno 2 - The component is rea | cinogenic to humans. robably carcinogenic ossibly carcinogenic t cations: own to be a human car sonably anticipated to | o humans. rcinogen. 9 be a human carcinogen. | | |
| | 12. ECOLO | GICAL INFORMATION | | |
| Persistence and degradab | ility : Not readi | ly biodegradable. | | |
| Environmental Toxicity | : Chemical polymer | s are not readily available a matrix. | s they are bound w | vithin the |
| Bioaccumulation Potenti | al : Chemical polymer i | s are not readily available a matrix. | s they are bound w | vithin the |
| Additional advice | : no data av | vailable | | |
| | 13. DISPOS | SAL CONSIDERATIONS | | |
| Product | generator classifica applicable | ossible recycling is preferred of waste material has the re- tion, transportation and disp e federal, state/provincial ar | esponsibility for prosal in accordance nd local regulation | oper waste with s. |
| Contaminated packaging | material h transporta | g is preferred when possible has the responsibility for pro- ation and disposal in accord vincial and local regulations | oper waste classific ance with applicab | cation, |
| | 14. TRANS | SPORT INFORMATION | | |
| U.S. DOT Classification | : Not regul | ated for transportation. | | |
| ICAO/IATA | : Refer to s | specific regulation. | | |
| IMO/IMDG (maritime) | : Refer to s | specific regulation. | | |
| | 15. REGULA | ATORY INFORMATION | I | |
| US Regulations: | | | | |
| OSHA Status | : Classified | l as hazardous based on con | nponents. | |

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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

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

| Chemical Name | CAS-No. | Weight percent |
|--|------------|----------------|
| ALUMINUM (FUME OR DUST)ALUMINUM (FUME | 7429-90-5 | 10.00 - 30.00 |
| OR DUST) | | |
| CHROMIUM III COMPOUNDSCHROMIUM III | 68186-90-3 | 1.00 - 5.00 |
| COMPOUNDSANTIMONY | | |
| COMPOUNDSCHROMIUM COMPOUNDS | | |
| ZINC (FUME OR DUST)ZINC (FUME OR DUST) | 7440-66-6 | 1.00 - 5.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight | NPRI ID# |
|--------------------------------|------------|---------------|----------|
| | | percent | |
| Aluminum | 7429-90-5 | 10.00 - 30.00 | |
| Rutile, antimony chromium buff | 68186-90-3 | 1.00 - 5.00 | |
| Zinc | 7440-66-6 | 1.00 - 5.00 | |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. | |
|------------|--|
| 7429-90-5 | |
| 68186-90-3 | |

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| 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 | | |
| 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.