



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

CHROMIUM TECH 968512/ 451

Version Number 1.2
Revision Date 03/29/2014

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
33587 Walker Road, Avon Lake, OH 44012

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure
number : or accident).
Product name : CHROMIUM TECH 968512/ 451
Product code : CC10147563
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight percent |
|------------|-----------|----------------|
| Iron oxide | 1309-37-1 | 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: : 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 : 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 of 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 : not applicable
Lower explosion limit : not applicable
Auto-ignition temperature : not applicable
Suitable extinguishing media : Class D special powder against metal fire, Dry chemical.

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 : 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 (NO_x), 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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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.

8. EXPOSURE 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 |
| Iron oxide | 10 mg/m3 | PEL: | Fume. | OSHA Z1 |
| | 5 mg/m3 | Time Weighted Average (TWA): | as Fe | MX OEL |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | as Fe | MX OEL |
| | 5 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | ACGIH |

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

| | |
|--------------------------|--|
| Stability | : The product is stable if stored and handled as prescribed. |
| Hazardous Polymerization | : Will not occur. |

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- 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 (NO_x), 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 |
|-----------|---------------|------------------|---------------------------------|
| 1309-37-1 | Iron oxide | Systemic effects | Respiratory system. |
| 7429-90-5 | Aluminum | Irritant | Skin, Respiratory system. |
| | | Systemic effects | Eyes, Skin, Respiratory system. |

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. 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.
- 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

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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 : 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 Substances (40 CFR 302)
not applicable

California Proposition : Not applicable
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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 OR DUST) | 7429-90-5 | 10.00 - 30.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight percent | NPRI ID# |
|---------------|-----------|----------------|----------|
| Aluminum | 7429-90-5 | 10.00 - 30.00 | |

WHMIS Classification : D2B

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WHMIS Ingredient Disclosure List

| CAS-No. |
|-----------|
| 7429-90-5 |
| 1309-37-1 |

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.