GHS Safety Data Sheet

SDS No. : CRO01PAEG Date Issued : 2012/10/12 Last updated : 2022/02/01

Section 1. Identification of the substance or mixture and of the supplier

Product Information

Product name: Cr₂O₃ Chromium(Ⅲ) oxide

| Product number: | Purity | Form | Size or Shape |
|-----------------|-----------|-----------------|---------------|
| CRO01PB | 99%(2N) | fine powder | са.3 µт |
| CRO02PB | 99.9%(3N) | fine powder | са.3 µт |
| CRO01GB | 3N | grains | _ |
| CR003_CROR3009 | 3N | tablet & target | φ 10×t5 mm |
| CR003_CROR3008 | 3N | tablet & target | φ 20×t5 mm |
| CR003_CROT3015 | 3N | tablet & target | φ 101.6×t5 mm |
| CR003_CROT3047 | 3N | tablet & target | φ 152.4×t5 mm |

Company Information:

Manufacturer: Kojundo Chemical Laboratory Co., Ltd.

1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284

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Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

| Health Hazards | Environmental Hazards | Physical Hazards |
|---|-----------------------|--|
| Respiratory sensitization: Category 1 Skin sensitization: Category 1 Specific target organ toxicity, repeated exposure: Category1 | No data available | Flammable solids: Not classified Pyrophoric solids: Not classified Self-heating substances and mixtures: Not classified Substances and mixtures which, in contact with water, emit flammable gases: Not classified |

GHS Label: C



Pictograms or symbols:

| Warning word: DANGER | | | |
|--|---|--|--|
| Hazard information | Description of precaution | | |
| May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergy skin reaction Causes damage to organs (respiratory tract) through prolonged or repeated exposure | Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Take off the contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN: Remove immediately all contaminated clothing and rinse skin with water/shower. Then wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Dispose of contents/ container in accordance with local/national regulations. | | |



Section 3. Composition / information on ingredients

Chemical or common name: Chromium(Ⅲ) oxide Synonyms: Dichromium trioxide

Chemical formula: Cr_2O_3

Single Substance or Compound: Single substance

 Composition:
 100%

 CAS #:
 1308-38-9

 RTECS#:
 GB6475000

 TSCA inventory:
 Listed

 EINECS:
 2151609

Section 4. First aid measures

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Continue to rinse for at least 15 minutes and get medical attention.

Skin contact: Promptly flush contaminated skin with soap or mild detergent and water.

Contact physician if irritation continues.

Inhalation: Remove the exposed person immediately and provide fresh air.

Get medical attention.

Ingestion: Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Extinguishing media: The product is not combustible.

Use media appropriate for surrounding fire.

Fire fighting: Self-contained breathing apparatus and full protective clothing should be

used, if the material is involved in fire.

Section 6. Accidental release measures

Personal Precautions:

Workers should use protective wears to prevent contact with the spilt adhesive and

inhalation of its vapor/dusts.

Environmental hazard precautions:

Shut off leak if without risk.

Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up:

Indoor leakage: Ventilate as much as possible until the cleaning is completed. Outdoor leakage: Work from the windward and evacuate the leeward crowd. Gather up, pack in closed DOT-approved waste container as much as possible.

Carefully collect remnant and move to a safe place.

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact

is foreseen.

Avoid prolonged or repeated exposure.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container.

Store in a cool, dry, well ventilated and dark place away from incompatible materials.



Section 8. Exposure controls / personal protection

Exposure guideline:

| | ACGIH(2019) | OSHA(2006) |
|-------------------------------|-------------------|-------------------|
| Chemical Name | TLV-TWA | PEL-TWA |
| | mg/m ³ | mg/m ³ |
| Chromium(Ⅲ) compounds (as Cr) | 0.003(I) | 0.5 |

I; Inhalable particulate

Facility measures: Local ventilation of closed work room or total proper ventilation to prevent

inhalation.

Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles,

impervious gloves, protective wear, protective boots.

Section 9. Physical and chemical properties

Appearance: Green solid, odorless

Chemical formula: Cr_2O_3 Formula weight: 152.0Melting point: $\sim 2300 \,^{\circ}\text{C}$ Boiling point: $3000 \sim 4000 \,^{\circ}\text{C}$ Density: $5.22 \, \text{g/cm}^3$ Solubility in water: Insoluble

Flammability: Non-combustible substance

Oxidation: No data available

Section 10. Stability and reactivity

Stability: Stable in closed container.

Reactivity:

Incompatibility: Nitromethane, lithium, strong oxidizing agents, chlorine trifluoride,

rubidium carbide

Section 11. Toxicological information

Acute toxicity(Oral): GHS: Not classified.

Oral rat $LD_{50} > 5000$ mg/kg (CICAD 76(2009))

Skin corrosive / irritation: GHS: Not classified.
Serious eye damage / irritation: GHS: Not classified.

Respiratory sensitization: GHS: Category 1; May cause allergy or asthma symptoms or

breathing difficulties if inhaled

Skin sensitization: GHS: Category 1; May cause an allergy skin reaction

Germ cell mutagenicity: GHS: No data available Carcinogenicity: GHS: No data available

Carcinogenicity:

| | ACGIH | IARC | NTP |
|-------------------------|--------|--------|--------|
| Chemical Name | (2019) | (2018) | (2016) |
| Chromium(III) compounds | A4 | 3 | _ |

ACGIH A4 Not classifiable as a Human Carcinogen.

IARC 3 The agent is not classifiable as to its carcinogenicity to humans.

Reproductive toxicity: GHS: No data available

Specific target organ toxicity

-single exposure: GHS: No data available

-repeated exposure: GHS: Category 1; Causes damage to organs (respiratory tract)

through prolonged or repeated exposure

Aspiration hazard: GHS: No data available



Section 12. Ecological information

Ecotoxicity:

Hazardous to the aquatic environment

-acute toxicity: GHS: No data available-chronic toxicity: GHS: No data available

Hazardous to the ozone layer GHS: No data available

No Freon or Halon

Fish toxicity:

Degradability:

Bioaccumulative potential:

Mobility in soil:

No data available

No data available

No data available

Section 13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed

'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN classification: Non-hazards

UN number: None HS code: 2819.90 Marine pollution: None

Precautions: Container should be transported in a secure position, in a well-ventilated

vehicle.

Section 15. Regulatory information

TSCA inventory: listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

This SDS is for provision of information, and it does not represent a guarantee the properties or safeties of the product.

The information herein is based on the references we could obtained and the present state of our knowledge, however, this SDS does not always cover all information about the product. Some new information or amendments may be added afterwards.

Prior to use, please investigate the laws and regulations of the organization, area and country where the product is to be used. The information is intended to ordinary usage, in case of special handling, sufficient care should be taken.

