



**Section 3. Composition / information on ingredients**

|                              |  |
|------------------------------|--|
| Chemical or common name:     | Chromium (III) fluoride, hydrate             |
| Chemical formula:            | CrF <sub>3</sub> ·xH <sub>2</sub> O          |
| Single Substance or Mixture: | Single substance                             |
| Composition:                 | 100%   |
| CAS #:                       | 123333-98-2 (3.5H <sub>2</sub> O:68886-78-2) |
| RTECS#:                      | GB6125000 (anhydrate)                        |
| TSCA inventory :             | listed (anhydrate)                           |
| EINECS:                      | 2321379 (anhydrate)                          |

**Section 4. First aid measures**

|               |   |
|---------------|---|
| Eye contact:  | Promptly rinse eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.   |
| Skin contact: | Remove immediately all contaminated clothing. Wipe off the product immediately by tissue or soft cloth, etc. Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues. |
| Ingestion:    | Rinse mouth and throat with water. Get medical attention immediately.   |
| Inhalation:   | Remove the exposed person immediately and provide fresh air.<br>Get medical attention.  |

**Section 5. Fire fighting measures**

|                      |  |
|----------------------|--|
| Extinguishing media: | The product is not combustible. Use media appropriate for surrounding fire.  |
| Fire fighting:       | In case of fire, the product may liberate toxic gases.<br>Self-contained breathing apparatus and full protective clothing should be used, if this product 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.<br>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.<br>Outdoor leakage: Work from the windward and evacuate the leeward crowd.<br>Gather up, pack in closed container as much as possible.<br>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. |
|----------------|--|

**Precautions to be taken in storage:**

|                      |   |
|----------------------|---|
| General precautions: | Store the material in a sealed container.<br>Store in a cool, dry, well ventilated and dark place away from incompatible materials. |
|----------------------|---|

## Section 8. Exposure controls / personal protection

Exposure guideline:

| Chemical Name                   | ACGIH(2013)TLV<br>TWA(mg/m <sup>3</sup> ) | OSHA(2006)PEL-TWA<br>(mg/m <sup>3</sup> ) |
|---------------------------------|---|---|
| Chromium(III) compounds (as Cr) | 0.5                                       | 0.5                                       |
| Fluorides (as F)                | 2.5                                       | 2.5                                       |

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

|                   |   |
|-------------------|---|
| Color and Form:   | Green solid                               |
| Chemical formula: | CrF <sub>3</sub> ·3.5H <sub>2</sub> O     |
| Formula weight:   | 172.0                                     |
| Melting point:    | 1100 °C (anhydrate)                       |
| Boiling point:    | 1100 ~ 1200 °C (anhydrate)                |
| Density:          | 2.2 g/cm <sup>3</sup> (3H <sub>2</sub> O) |
| Water solubility: | Soluble                                   |
| Flammable:        | Non-flammable                             |
| Oxidation:        | None                                      |

## Section 10. Stability and reactivity

Stability: Stable in closed container at room temperature.

Reactivity:

|                      |                   |
|----------------------|-------------------|
| Incompatibility:     | Oxidizing agents  |
| Conditions to avoid: | No data available |

## Section 11. Toxicological information

|                                  |  |
|----------------------------------|--|
| Acute toxicity:                  | GHS : No data available  |
| Skin corrosive / irritation:     | GHS : Category 1 ; Causes severe skin burns and eye damage                                   |
| Serious eye damage / irritation: | GHS : Category 1 ; Causes serious eye damage   |
| Respiratory sensitization:       | GHS : Category 1 ; May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| Skin sensitization:              | GHS : Category 1 ; May cause an allergic skin reaction                                       |
| Germ cell mutagenicity:          | GHS : No data available  |
| Carcinogenicity:                 | GHS : No data available  |

| Ingredients             | ACGIH<br>(2013) | IARC<br>(2017) | NTP<br>(2016) |
|-------------------------|-----------------|----------------|---------------|
| Chromium(III) compounds | A4              | G3             | —             |
| Fluorides               | A4              | —              | —             |

ACGIH A4 Not classifiable as a human carcinogen.

IARC G3 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

Specific target organ toxicity

– repeated exposure: GHS : No data available

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 the ozone layer:

GHS ; No data available

No Freon or Halon

Fish toxicity:

No data available

Degradability:

No data available

Bioaccumulative potential:

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 number: 1756

IATA shipping name: CHROMIC FLUORIDE, SOLID

IATA classification: Hazardous Class 8 (Corrosive substances)

IATA packing group: II

HS code: 2826.19

Marine pollution: None

## Section 15. Regulatory information

TSCA inventory : listed

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

## Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.