| 0 | $\mathcal{R}$ & $\mathcal{F}$ Chemical |
|---|--|
|---|--|

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# 1. Chemical Products and Manufacturing Company Name

1) Chemical Product Name: RF7051CU

2) Manufacturing company information

① Name of Manufacturing Company: R&F Chemical

② Address: A7-011, 550, Misa-daero, Hanam-si, Gyeonggi-do, Republic of Korea

③ Phone No.: +82-31-8027-3737 Fax No.: +82-31-8027-3738

4 Date of MSDS 1st ver. 2020.03.31

# 2. Composition / Information on Ingredients

| Chemical Ingredients Name | CAS No.   | Composition (%)  |
|---------------------------|-----------|------------------|
| Copper                    | 7440-50-8 | Business secrets |
| Poly Ethylene             | 9002-88-4 | Business secrets |
| Adhesive Composite        | _         | Business secrets |
| Other Subastances         | _         | Business secrets |

#### 3. Hazards Identification

- 1) Eye Contact
  - ① Short term exposure: In case of direct contact with adhesive layer, allergy may occur.
  - ② Long term effects: In case of direct contact with adhesive layer, allergy may occur.
- 2) Skin Contact

① Short term exposure: no data

② Long term effects : no data

3) Inhalation

① Short term exposure : no data

2 Long term effects: no data

4) Digestion

① Short term exposure: no data

2 Long term effects: no data

5) Effects of Chronic Symptoms: No Data

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#### 4. First Aid Measures

- 1) Eye Contact
  - ① If you have an abnormality, rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately
- 2) Skin Contact
  - ① If you have an abnormality, like infection or allergic reaction, Remove contaminated clothing and shoes immediately
  - ② Cover the wound loosely with a sterile bandage for burns
  - 3 Clean the chemical with soap or neutral detergent using a large amount of water until it is completely removed (minimum 15-20 minutes)
  - 4 Medical measures should be taken immediately
- 3) Inhalation
  - ① Inhalation in powder type, Move immediately from the exposed area to fresh air
  - ② If breathing stops, perform CPR
  - 3 Ensure patient is warm and comfortable
  - 4 Medical measures should be taken immediately
- 4) Digestion
  - 1 If vomit occurs, keep the head lower than the hips to prevent vomit from preventing airway
  - 2 Seek medical attention if necessary
- 5) Information about the doctor
  - 1) No special antidote
  - 2 Functionally treat as symptoms

#### 5. How to Deal with Explosions and Fires

- 1) Ignition temp. : No data
- 2) Auto ignition temp. : No data
- 3) Minimum/Maximum ignition limits: No data
- 4) Classification and regulations under the Fire Protection Act : No data
- 5) Fire extinguishing agent: powder extinguishing agent, carbon dioxide, water, or regular foam

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- 6) Fire extinguishing methods and equipment
  - ① Remove containers from fire areas if they are not dangerous
  - ② Spray a high-pressure water stream on a leaking substance to prevent scattering
  - 3 Build embankments for post-processing
  - 4 Use a fire extinguishing agent to catch fire
  - ⑤ Avoid inhalation of substances themselves or combustion products
  - 6 Keep the wind and avoid the lowlands
- 7) Hazardous substances generated during combustion
  - ① Thermal decomposition products can cause severe smoke and irritability, such as carbon oxides

## 6. How to Deal with Leakage

- 1) Actions required to protect the human body: no data
- 2) Actions needed to protect the environment : no data
- 3) Purification or removal: Sweep for regeneration or follow-up and store in a clean and suitable container

#### 7. How to Handle and Store

- 1) Safety handling tips: no data
- 2) Storage method: Store and handle in accordance with current laws and regulations

# 8. Prevention and Protection of Exposure

- 1) Respiratory protection: Use of respirators is recommended
- 2) Eye protection: Safety glasses are recommended.
- 3) Skin protection: Wear proper protective cloth, protective gloves and protective equipment
- 4) Exposure criteria : no data

## 9. Physical and Chemical Properties

- 1) Appearance : Semi-Transparent (Brown)
- 2) Odor: No intoxication

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3) pH : No Data

4) Solubility: (water) not applicable

5) Boiling point / boiling point range: Not applicable

6) Melting point / Melting point range: 130°C (266°F)

7) Explosive and oxidizing: No data

8) Vapor pressure and Vapor pressure density: No data

9) Density (Water=1.0) : 0.90~0.95

# 10. Stability and Reactivity

1) Chemical stability: steady at room temperature and pressure

- 2) Conditions to avoid: avoid contact with strong oxidizing agent, overheating, sparks and flames
- 3) Hazardous polymerization: No
- 4) Harmful substances generated by decomposition: carbon dioxide, carbon monoxide, and irritant fume may be included

### 11. Information about Toxicity

1) Acute Oral Toxicity: No data

2) Acute inhalation toxicity: No data

3) Subacute toxicity: No data

4) Chronic toxicity: No data

5) Variability impact: No data

6) Next Generation Impact (Creative Toxicity): No data

7) Impact of carcinogenicity: No data

8) Other specialties: No data

### 12. Environmental Impact

1) Aquatic and ecological toxicity: No data

2) Soil mobility: No data

3) Residuality and decomposition: No data

4) Possibility of in vivo accumulation of younger siblings: No data

#### 13. Precautions for Disposal

1) Status of regulations under the Waste Management Act : No data

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- 2) Disposal method: Disposal should comply with all regulations of the central and local governments.
- 3) Precautions for disposal: No data

# 14. Information Required for Transportation

- 1) Classification and regulation by ship transport and storage rules of the Ship Safety Act : No data
- 2) Transportation precautions: No data
- 3) Classification and regulation by other foreign transport regulations : No data

## 15. Legal Matter

- 1) Industrial Safety and Health Act: Not applicable
- 2) Regulations under the Chemicals Related Laws of Other Departments, such as the Hazardous Chemicals Management Act: Not applicable
- 3) Regulations under Other Foreign Laws: Unregulated

### 16. Other notes

- 1) Source of data
  - This data is based on MSDS provided by D/B and MSDS provided by the Industrial Health and Guidance Bureau of the Korea Occupational Safety Management Corporation.
- 2) As provided under Article 41 of the Industrial Safety and Health Act, this MSDS is believed to be correct at this time on the basis of the DATA we know.
- 3) This data is intended to assist handler, purchaser or third party in material safety, but it should be noted that the Company cannot guarantee any technical or legal responsibility for the suitability or commercial application or expression of the material.