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## Safety Data Sheets (SDS)

### 1. Product and Company Information

Product name: RCF-6 FD-S  
Company name: CHUGAI PHOTO & CHEMICAL Co.,Ltd.  
Address: 2-19-1 Narihira, Sumida-ku, Tokyo,130-0002,Japan  
Department in charge: Sales Promotion Division  
Telephone: 047-362-2596  
Fax number: 047-368-1091  
Emergency contact: Same as above

### 2. Hazards Summary:

GHS Classification (Classification criteria are Japanese method):

Health hazards:

Skin corrosion/irritation: Category 1  
Serious eye damage/eye irritation: Category 1  
Respiratory sensitization/skin sensitization: Category 1  
Specific target organ/systemic toxicity  
(Single exposure): Category 1, Category 2

Label elements:

Pictograms:



Corrosive health



hazard

Signal word:

Danger

Hazard and Toxicity Statement:

Serious skin burns (category 1)  
Serious eye damage (category 1)  
May cause allergies, asthma, or breathing difficulties if inhaled (category 1)  
organs ( blood system) (Category 1 (single exposure))  
Risk of organ (respiratory system) damage (Category 2 (single exposure))

Note:

[Preventive measures]

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Wear protective gloves, clothing, a protective mask and safety glasses.

**【correspondence】**

- If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, then continue rinsing.  
If eye irritation persists, seek medical advice/attention.
- Skin contact: Wash with plenty of water and soap.  
If skin irritation occurs, seek medical advice and treatment.  
Remove contaminated clothing and wash before reuse.  
If exposed or feel unwell, contact a physician.

**【storage】**

- Store in a cool place away from direct sunlight.  
Keep out of reach of children.

**【Discard】**

- Entrust the contents and container to a waste disposal company authorized by the prefectural governor. (See 13. Disposal Precautions.)

**[Precautions for use]**

- Wear appropriate protective equipment when handling. Wash hands and face thoroughly after handling.

**3. Composition information****Distinguishing between single products and mixtures**

In principle, items subject to labeling or notification under the Industrial Safety and Health Act must display a percentage equal to or higher than the specified percentage under the Industrial Safety and Health Act, and all other items must display a percentage equal to or higher than 1%.

Ingredient name	content (%)	CAS No.	Chemical Substance Control Law No.	PRTR Law	GHS classification Contributing Component
water	65-85	7732-18-5			Not applicable
Sodium bromide	10-20	7647-15-6	1-0113		Not applicable
Acetic acid					
[Safety and Health Notice]	5-15	64-19-7	2-0688		Not applicable

Substances subject to the PRTR Law (Law for Promoting the Management of Chemical Substances) are shown with their classification as specific Class 1, Class 1, or Class 2 designated chemical substances and their Cabinet Order Number.

Ingredients with the notation [Safety and Health Labeling] next to them are subject to labeling under the Industrial Safety and Health Act, those with the notation [Safety and Health Notification] are subject to notification under the Industrial Safety and Health Act, and those with the notation [Organic Solvent Poisoning Prevention Regulations] are subject to the Industrial Safety and Health Act's Organic Solvent Poisoning Prevention Regulations.

**4. First aid measures**

- Inhalation: Immediately move victim to fresh air and keep quiet. If symptoms persist, seek medical attention.
- Skin contact: Immediately wash affected area with plenty of water and soap. Remove

contaminated clothing and wash thoroughly before reuse. If symptoms persist, seek medical attention.

In case of contact with eyes: Immediately flush eyes with clean running water for several minutes. If symptoms persist, seek medical attention.

If swallowed: Rinse mouth thoroughly with water and seek medical attention.

## 5. Fire Prevention Measures

Extinguishing media: Use water, carbon dioxide, powder, or foam extinguishers.

Unsuitable extinguishing agents: No extinguishing agents are unsuitable under normal circumstances.

Specific fire fighting methods: In case of fire in the surrounding area, move containers to a safe place if possible.

All non-essential personnel should evacuate to a safe place immediately.

Take care to ensure that leaked substances and fire extinguishing agents are not discharged into rivers, etc.

Firefighting activities should be carried out from upwind whenever possible.

Protection of firefighters: Wear appropriate protective equipment when fighting fires.

## 6. Leak Prevention Measures

Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective equipment when working (see "8. Exposure Prevention and Personal Protection").

Environmental precautions: Take care not to discharge spills into rivers, etc.

Ensure ventilation as necessary.

Methods and equipment for containment and cleanup:

Collect any spills in an appropriate manner and then flush with plenty of water.

## 7. Handling and storage precautions

Available:

Technical measures: Avoid contact with skin, mucous membranes, clothing, and eyes. Wash hands and face thoroughly after handling.

Local/general exhaust: Ensure that the work area is adequately ventilated.

Note: See next page

Safe handling precautions: Wear appropriate protective equipment when handling. Wash hands and face thoroughly after handling.

storage:

Storage conditions: Store in a cool, sealed container away from direct sunlight.

Incompatible materials: Strong alkali

Safe container and packaging materials: Use plastic containers with sufficient strength.

## 8. Exposure Controls and Personal Protection

Facility measures: Ensure that the workplace is adequately ventilated. Also, provide hand washing and face washing facilities near the workplace, and wash your hands and face thoroughly after handling.

Controlled and permitted concentrations of contained ingredients:

Ingredient Name	CAS No.	Ministry of Health, Labor and Welfare Notification		ACGIH TLV
		Permissible Concentration	Japanese Industry Hygiene Society	
Sodium Bromide	7647-15-6	No set value	No set value	No set value
Acetic acid	64-19-7	No set value	25mg/m <sup>3</sup>	10ppm (TWA)

## Protective equipment:

Respiratory protection: Wear appropriate respiratory protection as necessary.

Hand protection: Wear suitable protective gloves.

Eye protection: Wear safety glasses. Face protection if necessary.

Skin and body protection:

Wear suitable protective clothing as necessary.

Hygiene measures: Do not eat, drink or smoke while working. Wash hands with soap before eating, drinking or smoking.

## 9. Physical and Chemical Properties

## Physical State

Form: Liquid

Color: Colorless

Odor: Acetic acid odor

pH: 1.8

Specific temperature/temperature range where physical state changes:

Boiling point:  $\sim 100^{\circ}\text{C}$ Melting point:  $\sim 0^{\circ}\text{C}$ 

Flammability, etc.: Stable under normal handling.

Flash point: Not applicable (non-flammable aqueous solution)

Ignition point: No data (not flammable)

Lower explosion limit : Not applicable

Upper limit : Not applicable

Vapor pressure: No data available

Vapor density: No data available

Specific Gravity: 1.16

Solubility (in water): Easy to dissolve

Octanol/water partition coefficient data not available

decomposition temperature data available

## 10. Stability and Reactivity

Stability: Stable under normal conditions of use.

Reactivity: May react strongly with strong alkali.

There is a risk of corroding metal.

Hazardous decomposition products: Carbon monoxide, carbon dioxide

Other information: None

## 11. Toxicological information

## Product data

## Acute toxicity

Acute oral toxicity (LD50):  $>5000\text{mg/kg}$  (calculated value)

Test animals: rats

## Local effects

Skin irritation: Causes severe skin burns

(Primary irritation index PII: no data available)

Test animals: No data available

Eye irritation: Causes serious eye damage.  
(Acute eye irritation index: no data available)  
Test animals: No data available  
Chronic toxicity/long-term toxicity: Inhalation may cause allergies, asthma, or breathing difficulties.  
Carcinogenicity information for component chemicals:  
Not classifiable  
Other information: None

#### Ingredient Data (Acetic Acid)

##### Acute toxicity

Acute oral toxicity (LD50): 3310mg/kg  
Test animals: rats  
Acute dermal toxicity (LD50) : 1060mg/kg  
Test animals: rabbits

##### Local effects

Skin irritation: Causes severe skin burns  
Test animals: No data available  
(Primary irritation index PII: no data available)  
Eye irritation: Causes serious eye damage.  
(Acute eye irritation index: no data available)  
Test animals: rabbits  
Chronic toxicity/long-term toxicity: Inhalation may cause allergies, asthma, or breathing difficulties.  
Carcinogenicity information for component chemicals:  
Not classifiable  
Other information: None

## 12. Environmental impact information

#### Product data

Acute toxicity to the aquatic environment: Not classified  
Fish toxicity: No data available  
Test species: No data available  
Chronic toxicity to the aquatic environment: Not classified

#### Ingredient Data (Acetic Acid)

Acute aquatic environmental hazard: Harmful to aquatic life  
Fish toxicity: 24 hour EC50=47 mg/L  
Test organism: Daphnia magna  
Chronic toxicity to the aquatic environment: Not classified

## 13. Disposal Considerations

If it is disposed of in its original form, it falls under the category of specially controlled industrial waste (waste acid).  
If your company does not have its own wastewater treatment equipment, you can entrust the treatment to a specialized industrial waste treatment company approved by the prefectural governor, by attaching a special industrial waste management form (manifest).  
When disposing of a liquid that has been mixed with FD-R and adjusted to a working solution, it is considered industrial waste.

If your company does not have its own wastewater treatment equipment, you can entrust the treatment to a specialized industrial waste treatment company authorized by the prefectural governor, by attaching an industrial waste management form (manifest).

Containers and cardboard are also treated as industrial waste.

[Applicable laws and regulations when disposing of the item]

Waste Management Law: Specially controlled industrial waste (waste acid)

Water Pollution Control Law: Living Environment Items

Sewerage Law: Restrictions on removal of sewage

#### 14. Transportation Precautions

UN classification: Corrosive substances (Class 8) [Other corrosive substances (inorganic, liquid, acidic)]

Container group III

UN Number: 3264

Emergency Response Guide Number: 154

When transporting goods by sea, the provisions of the Ship Safety Act must be followed.

When transporting goods by air, the provisions of the Aviation Act must be complied with.

See section 7. Handling and storage precautions.

When transporting, check that there are no leaks, and load the goods carefully to prevent them from tipping, falling, or being damaged, and take steps to ensure that the goods do not collapse.

#### 15. Applicable Laws and Regulations

under the Chemical Substances Control Law : Not applicable

Designated Chemical Substances: Not applicable

Industrial Safety and Health Act Hazardous Materials: Not applicable

Special rules: Not applicable

Organic law: Not applicable

Display subject: Not applicable

Notification subject: Acetic acid

Poisonous and Hazardous Substances Act: Not applicable

Fire Service Act: Not applicable

Chemical Substances Management Promotion Act

(PRTR Law): Not applicable

Ship Safety Act: Other corrosive substances ( corrosive substances: Class 8)

Aviation Law: Other corrosive substances ( corrosive substances: Class 8)

#### 16. Other Information

RCF-6 FD-S 50L Liquid volume per unit: 0.25L

The contents are based on currently available information, but we do not guarantee the data or evaluations contained herein.

Hazard and harmfulness assessments have not always been sufficient, so please handle with care.

In the event of special handling, it is the user's responsibility to take appropriate measures according to the actual situation.

In addition, the contents may be revised based on changes in laws and regulations or new knowledge.