

FUJIFILM Toyama Chemical Co.,Ltd.

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

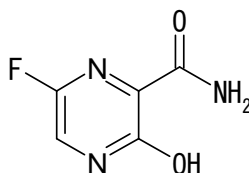
Product Name: T-705
Manufacturer:
Company Name: FUJIFILM Toyama Chemical Co., Ltd.
Address: 14-1, Kyobashi 2-Chome, Chuo-Ku, Tokyo 104-0031 Japan
Department: Industrial Technology Dept.
4-1, Shimo-Okui 2-chome, Toyama-shi, Toyama 930-8508
Japan
Telephone Number for Information: 81-76-431-8234
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2. HAZARDS IDENTIFICATION

Physical Hazards: No information available
Health Hazards: See 11. TOXICOLOGICAL INFORMATION
Environmental Hazards: No information available

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical/Mixture: Chemical
T-705
Chemical Name: 6-fluoro-3-hydroxypyrazine-2-carboxamide
INN: Favipiravir
Percentage: 98.0–102.0%
Molecular Formula: $C_5H_4FN_3O_2$
Chemical Structure:



CAS No. : 259793-96-9
Reference Number in Gazetted List in Japan:
Number of Industrial Safety and Health Act; 8-(2)-2214
Number of Act on the Evaluation of Chemical Substances and Regulation of Their
Manufacture; Not applicable

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical aid if necessary.
Skin Contact: Remove contaminated clothing and shoes. Thoroughly wash affected area with water stream. If skin symptom persists, get

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Material Safety Data Sheet

medical aid.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes.
If eye symptom persists, get medical aid.

Ingestion: Rinse out the patient mouth with water and give plenty of water to him/her to drink. Induce vomiting if possible and get medical aid immediately.

5. FIRE FIGHTING MEASURES

Firefighting Instructions: Wear self-contained breathing apparatus and other protective equipments.

Extinguishing Media: Water, Carbon dioxide, Foam, Dry chemical

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency procedures:

Wear proper protective equipments, such as masks, eye glasses and protection gloves, to avoid contact with the substance.

Environmental precautions: Do not let the substance enter the environment.

Methods and Materials for Containment and Cleaning Up: Recover the spilled substance as possible. Clean the spilled area with plenty of water.

7. HANDLING AND STORAGE

Handling Note: Wear proper protective equipments, such as mask, eye glasses and protection gloves, to avoid contact with the substance.

Storage Note: Store in a well-closed container at room temperature and keep away from sources of ignition.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Control limit: No data available

Occupational Exposure Limits (OEL): 100-1,000 µg/m³
(1-month repeated oral dose toxicity study in dog)

Safety Measures for Facilities: Prevent the spread of substance. Set local or general ventilation.

Protective equipments: Wear mask, eye glasses and protection gloves, to avoid contact with the substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance etc.: White to light yellow powder

Melting Point (JP): 191 °C

Solubility: Water; 3.0
(mg/mL) Ethyl Alcohol(99.5) ; 7.9
Methyl Alcohol; 19.3
Acetonitrile; 28.1

Molecular Weight: 157.10

10. STABILITY AND REACTIVITY

Reactivity: No data available

Explosibility: No data available

FUJIFILM Toyama Chemical Co.,Ltd.

Material Safety Data Sheet

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	Rat (Oral); LD ₅₀ >2000 mg/kg	
	Mouse (Oral); LD ₅₀ >2000 mg/kg	
Repeated Dose Toxicity (NOAEL, oral):		
	Rat (1-month);	32 mg/kg
	Dog (1-month);	10 mg/kg
	Monkey (2-week);	100 mg/kg
Skin Corrosion/Irritation:	No data available	
Serious Eye Damage/Eye Irritation:	No data available	
Respiratory or Skin Sensitization:	No data available	
Carcinogenicity:	No data available	
Mutagenicity:	Reverse mutation test in bacteria;	Negative
	Chromosomal aberration test at 6hr (–S9/+S9);	Negative
	Chromosomal aberration test at 24hr (–S9);	Positive
	Mouse lymphoma assay;	Positive
	Micronucleus test in rats at 500-1000 mg/kg;	Negative
	Micronucleus test in rats at 2000 mg/kg;	Positive
	Unscheduled DNA synthesis study in rats;	Negative
Reproductive and Developmental Toxicity (oral):	Early embryo death (rats, 30 mg/kg) and teratogenicity (mice, 300 mg/kg; rats, 60 mg/kg; rabbits, 600 mg/kg and monkeys, 200 mg/kg) were observed.	
Other Test:	Phototoxicity study in mice; ≥100 mg/kg: Positive, 30 mg/kg: Negative	
	Testicular toxicity study (oral);	
	Histopathological change in testis (rats, 100 mg/kg, 2-week) and abnormality in sperm (mice, 1000 mg/kg, 2-week) were observed. These were reversible changes which recovered or tended toward recovery after cessation of the drug.	

12. ECOLOGICAL INFORMATION

Aquatic Ecotoxicity:	No data available
Biodegradation:	No data available
Bioaccumulation:	No data available

13. DISPOSAL CONSIDERATIONS

Product waste must be disposed in accordance with the relevant regulation oneself or local government's regulation or by waste treatment company having the official approval of regulation.

14. TRANSPORT INFORMATION

Make sure there is not any damage or corrosion in container. Load and transport the container keeping from falling and damaging.

15. REGULATORY INFORMATION

No regulatory information available.

16. OTHER INFORMATION

The information contained herein is accurate to the best of our knowledge at this time and may be

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Material Safety Data Sheet

revised by new knowledge. Nothing herein shall be deemed to create any warranty of any kind. It is the responsibility of the user to determine the applicability of this information and the suitability of any material. Notes are aimed at ordinary handling. In case of special handling, usage, please take safety measures.