

SAFETY DATA SHEET

Issue Date 17-Mar-2025
Revision Number 3.06

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name 3,4-Dihydro-2H-pyran
Other means of identification
Product Code(s) 042-02183,046-02186,046-02181

Recommended use of the chemical and restrictions on use

Recommended Use For research use only.
Uses advised against Seek expert judgment when using for purposes other than those recommended.

Details of the supplier of the safety data sheet**Manufacturer Address**

FUJIFILM Wako Pure Chemical Corporation
 1-2, Doshomachi 3-Chome,
 Chuo-ku Osaka 540-8605, Japan
 Tel : +81-6-6203-3741
 Fax: +81-6-6201-5964

Distributor

FUJIFILM Irvine Scientific
 E. Warner Avenue, Santa Ana, CA 92705-5505, U.S.A.: +1 949 261 7800
 Fax: +1 949 261 6522

2. HAZARDS IDENTIFICATION

GHS classification**Classification of the substance or mixture**

Flammable liquids	Category 2
Skin sensitization	Category 1
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

Pictograms**Signal word**

Danger

Hazard statements

H225 - Highly flammable liquid and vapor
 H317 - May cause an allergic skin reaction
 H402 - Harmful to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

Precautionary statements-(Prevention)

Avoid breathing dust/fume/gas/mist/vapors/spray Contaminated work clothing should not be allowed out of the workplace
 Avoid release to the environment Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating / lighting / equipment Use only non-sparking tools Take precautionary measures against static discharge Wear protective gloves/protective clothing/eye protection/face protection

Precautionary statements-(Response)

If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF ON SKIN (or hair):
 Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 In case of fire: Use suitable extinguishing media for extinction

Precautionary statements-(Storage)

Store in a well-ventilated place. Keep cool

Precautionary statements-(Disposal)

Dispose of contents/container to an approved waste disposal plant

Others**Other hazards** Not available**3. COMPOSITION/INFORMATION ON INGREDIENTS****Single Substance or Mixture** Substance**Formula** C5H8O

Chemical Name	Molecular weight	CAS RN	Weight-%
3,4-Dihydro-2H-pyran	84.12	110-87-2	97.0

Impurities and/or Additives: Not applicable**4. FIRST AID MEASURES****First aid measures****General Information** Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.**Skin contact** Wash skin with soap and water.**Inhalation** Remove to fresh air.**Ingestion** Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.**Most important symptoms and effects, both acute and delayed****Symptoms** No information available.**Indication of any immediate medical attention and special treatment needed****Note to physicians** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing media**

Carbon dioxide (CO2). Foam. Extinguishing powder. Sand.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air.

Explosion data**Sensitivity to Mechanical Impact** none.**Sensitivity to Static Discharge** none.**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Methods for cleaning up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use with local exhaust ventilation.

Protective measures Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

Conditions for safe storage, including any incompatibilities

Storage conditions Keep container protect from light tightly closed. Store in a cool (2-10 °C) place.

Packaging materials Glass.

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits Not applicable

Personal protective equipment

Respiratory protection gas mask for organic gas (JIS T 8152)

Hand protection chemical protective gloves (JIS T 8116)

Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	
Color	Colorless - nearly colorless
Turbidity	clear
Appearance	liquid
Odor	characteristic odor
pH	no data available
Melting point/freezing point	-70 °C
Boiling point, initial boiling point and boiling range	86 °C
Flash point	-15 °C / 5 °F
Evaporation rate:	no data available
Flammability (solid, gas):	no data available
Upper/lower flammability or explosive limits	
Upper:	no data available
Lower:	no data available
Vapour pressure	no data available
Vapour density	2.92(air=1)
Specific Gravity / Relative density	0.926 - 0.932 g/mL
Solubilities	water : slightly soluble . ethanol, acetone : Very soluble.
n-Octanol/water partition coefficient:(log Pow)	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

Stability

Chemical stability	May be altered by light.
Reactivity	no data available

Hazardous reactions

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
3,4-Dihydro-2H-pyran	N/A	N/A	> 10.7 mg/L (Rat) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
3,4-Dihydro-2H-pyran	Based on the NITE GHS classification results.

12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
3,4-Dihydro-2H-pyran 110-87-2	ErC50 : Desmodesmus > 120 mg/L 72 h	LC50 : Leuciscus idus = 120 mg/L 96 h	N/A	EC50 : Daphnia magna = 63.6 mg/L 48 h

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

Chemical Name	Partition coefficient
3,4-Dihydro-2H-pyran 110-87-2	1.6

Mobility in soil

No information available

Other Data

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Precautionary including method of Disposal should be in accordance with applicable regional, national and local laws and **disposing contaminated packaging** regulations.

14. TRANSPORT INFORMATION

DOT

UN/ID No UN2376
Proper shipping name: 2,3-Dihydropyran
UN classification 3
Subsidiary hazard class
Packing group II
Marine pollutant Not applicable

IATA

UN/ID No UN2376
Proper shipping name: 2,3-Dihydropyran
UN classification 3
Subsidiary hazard class
Packing group II
Environmentally Hazardous Substance Not applicable

IMDG

UN/ID No UN2376
Proper shipping name: 2,3-Dihydropyran
UN classification 3
Subsidiary hazard class
Packing group II
Marine pollutant (Sea) Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS RN	Weight-%	SARA 313 - Threshold Values %
3,4-Dihydro-2H-pyran - 110-87-2	110-87-2	97.0	N/A

SARA 311/312 Hazard Categories

Acute health hazard No
Chronic Health Hazard No
Fire hazard Yes
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level

pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any chemicals regulated by Proposition 65

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
3,4-Dihydro-2H-pyran 110-87-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

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Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet