



SAFETY DATA SHEET

According to JIS Z 7253:2019 Revision date 07-Mar-2023 Revision Number 2.04

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	(S)-Perillyl Alcohol
Product Code	322-52901,320-52902

Manufacturer FUJIFILM Wako Pure Chemical Corporation

> 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741

Supplier FUJIFILM Wako Pure Chemical Corporation

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Emergency telephone number Recommended uses and

+81-6-6203-3741 / +81-3-3270-8571 For research use only

restrictions on use

Section 2: HAZARDS IDENTIFICATION

GHS classification Classification of the substance or mixture Skin corrosion/irritation Serious eye damage/eye irritation

Category 2 Category 2A

Pictograms



Signal word

Warning

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

Precautionary statements-(Prevention)

- · Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection

- Precautionary statements-(Response)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue
 - If eye irritation persists: Get medical advice/attention
 - IF ON SKIN: Wash with plenty of soap and water
 - If skin irritation occurs: Get medical advice/attention
 - · Take off contaminated clothing and wash before reuse

Precautionary statements-(Storage)

Not applicable

Precautionary statements-(Disposal)

Not applicable

Others

Other hazards Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula C10H16O

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
(S)-Perillyl Alcohol	85	152.23	N/A	N/A	18457-55-1

Note on ISHL No.: * in the table means announced chemical substances.

Impurities and/or Additives: Not applicable

Section 4: FIRST AID MEASURES

Inhalation

Remove to fresh air. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

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.

Protection of first-aiders

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Water spray (fog), Carbon dioxide (CO2), Foam, Extinguishing powder, Sand

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special extinguishing method

No information available

Special protective actions for

fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminent and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recoverly, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle In places other than those specified, should not be smoking or eating and drinking Should not be brought contaminated protective equipment and gloves to rest stops Deny unnecessary entry of non-emergency personnel to the handling area

Safety handling precautions

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage

Safe storage conditions

Storage conditions Store away from sunlight in well-ventilated place at room temperature (preferably cool).

Keep container tightly closed.

Safe packaging material Glass

Incompatible substances Strong oxidizing agents

Section 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 handand eye-wash facility. And display their position clearly.

Exposure limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Personal protective equipment

Respiratory protection Protective mask **Hand protection** Protective gloves

Eye protection protective eyeglasses or chemical safety goggles

Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color Colorless - pale yellow

Appearance liquid

Odor

Melting point/freezing point

Boiling point, initial boiling point and boiling range
Flammability

Evaporation rate:

Flammability (solid, gas):

no data available
no data available
no data available
no data available

Upper/lower flammability or

explosive limits

Upper:

Lower:

no data available
no data available
rlash point

>110 °C

Auto-ignition temperature:no data availableDecomposition temperature:no data availablepHno data availableViscosity (coefficient of viscosity)no data availableDynamic viscosityno data available

Solubilities Ethanol , acetone : miscible . water : slightly soluble .

n-Octanol/water partition coefficient:(log Pow) no data available vapour pressure no data available

Specific Gravity / Relative density 0.960

Vapour density no data available
Particle characteristics no data available

Section 10: STABILITY AND REACTIVITY

Stability

Reactivity no data available

Chemical stability Stable under recommended storage conditions.

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 monooxide (CO), Carbon dioxide (CO2)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity no data available

Skin irritation/corrosionno data availableSerious eye damage/ irritationno data availableRespiratory or skin sensitizationno data availableReproductive cell mutagenicityno data availableCarcinogenicityno data available

Reproductive toxicityno data availableSTOT-single exposureno data availableSTOT-repeated exposureno data availableAspiration hazardno data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available

Other data no data available

Persistence and degradability
Bioaccumulative potential
Mobility in soil
Hazard to the ozone layer

No information available
No information available
No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues

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

Contaminated container and contaminated packaging

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

Section 14: TRANSPORT INFORMATION

ADR/RID Not regulated

UN number -

Proper shipping name: UN classfication Subsidiary hazard class

Packing group

Marine pollutant Not applicable

IMDG Not regulated

UN number -

Proper shipping name: UN classfication Subsidiary hazard class

Packing group

Marine pollutant (Sea) Not applicable

Transport in bulk according to No information available

Annex II of MARPOL 73/78 and

the IBC Code

IATA Not regulated

UN number -

Proper shipping name: UN classfication Subsidiary hazard class

Packing group

Environmentally Hazardous

Substance

Section 15: REGULATORY INFORMATION

Not applicable

International Inventories

EINECS/ELINCS TSCA -

Japanese regulations

Fire Service Act Category IV, Class III petroleums, dangerous grade 3

Poisonous and Deleterious Not applicable

Substances Control Law

Industrial Safety and Health Act Not applicable Regulations for the carriage Not applicable

and storage of dangerous

goods in ship

Civil Aeronautics Law Not applicable Pollutant Release and Transfer Not applicable

Register Law (~2023.3.31)

Pollutant Release and Transfer

Not applicable

Register Law

(2023/4/1~) Export Trade Control Order

Not applicable

Section 16: OTHER INFORMATION

Key literature references and

sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)

http://www.safe.nite.go.jp/japan/db.html

IATA dangerous Goods Regulations RTECS:Registry of Toxic Effects of Chemical Substances Japan Industrial Safety and Health Association GHS Model SDS Dictionary of Synthetic Oraganic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd. Chemical Dictionary, Kyouritsu Publishing Co., Ltd. etc.

Disclaimer

This SDS is according to JIS Z 7253: 2019. 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, 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.

GHS Classification is according to JIS Z7252(2019). *JIS: Japanese Industrial Standards

End of Safety Data Sheet