

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 01-Mar-2024
 Revision Number 1.08

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Transparent Skeletal Specimen Prep Kit
Product Code	295-77301

Supplier FUJIFILM Wako Pure Chemical Corporation
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Recommended uses For research use only

Restrictions on use Seek expert judgment when using for purposes other than those recommended.

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 2
Category 2 respiratory system	
Specific target organ toxicity (repeated exposure)	Category 2
Category 2 central nervous system, respiratory system, heart	
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

Pictograms



Signal word

Danger

Hazard statements

- H315 - Causes skin irritation
- H318 - Causes serious eye damage
- H332 - Harmful if inhaled
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H341 - Suspected of causing genetic defects
- H350 - May cause cancer
- H360 - May damage fertility or the unborn child
- H317 - May cause an allergic skin reaction
- H402 - Harmful to aquatic life

H412 - Harmful to aquatic life with long lasting effects

H371 - May cause damage to the following organs: respiratory system

H373 - May cause damage to the following organs through prolonged or repeated exposure: central nervous system, respiratory system, heart

Precautionary statements-(Prevention)

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Use only outdoors or in a well-ventilated area
- Wash face, hands and any exposed skin thoroughly after handling
- In case of inadequate ventilation wear respiratory protection
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves
- Do not breathe dust/fume/gas/mist/vapors/spray
- Do not eat, drink or smoke when using this product
- Avoid release to the environment

Precautionary statements-(Response)

- IF exposed or concerned: Get medical advice/attention
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- IF ON SKIN: Wash with plenty of soap and water
- Take off contaminated clothing and wash before reuse
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Precautionary statements-(Storage)

- Store locked up

Precautionary statements-(Disposal)

- Dispose of contents/container to an approved waste disposal plant

Others

Other hazards Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Kit (Set of mixtures)

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Fixative Solution A	(50ml x 1)	N/A	N/A	N/A	N/A29-7731
Fixative Solution B	(50ml x 1)	N/A	N/A	N/A	N/A29-7732
Solvent for Stain Reagent	(100ml x 2)	N/A	N/A	N/A	N/A29-7733
Stain Reagent	(50mg x 1)	N/A	N/A	N/A	N/A29-7734
Decolorizing Solution A	(120ml x 1)	N/A	N/A	N/A	N/A29-7735
Decolorizing Solution B	(120ml x 1)	N/A	N/A	N/A	N/A29-7736
Displacing Solution	(100ml x 1)	N/A	N/A	N/A	N/A29-7737
Preservative Solution	(100ml x 1)	N/A	N/A	N/A	N/A29-7738
Glass Bottle	(5ml x 4)	N/A	N/A	N/A	N/A29-7739

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

Hazardous Component

Paraformaldehyde <5%, Polyoxyethylene(10) Octylphenyl Ether <15%, Potassium Hydroxide <2%, Alizarine Red S sodium salt <100%, Polyoxyethylene(20) Sorbitan Monolaurate <45%, Ethylene Glycol <10%, Glycerol <100%, Sodium Azide <0.1%

Substances Remarks:

The composition considered to be hazardous are listed in the above. The remaining ingredients are not hazardous substances, or exist at below reportable level.

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 contaminant and methods and materials for cleaning up

Sweep up and gather scattered particles, and collect it in an empty airtight container.

Recovery, 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 a cool (2-10 °C) well-ventilated dry place. Store locked up.

Safe packaging material

No information available

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 hand- and eye-wash facility. And display their position clearly.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Glycerol 56-81-5	N/A	N/A	TWA 10mg/m ³ (vapor)
Ethylene Glycol 107-21-1	N/A	N/A	STEL: 50 ppm vapor fraction STEL: 10 mg/m ³ inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction
Paraformaldehyde 30525-89-4	N/A	(HCHO)0.1 mg/m ³	N/A
Potassium Hydroxide 1310-58-3	Ceiling: 2 mg/m ³	N/A	Ceiling: 2 mg/m ³

Personal protective equipment**Respiratory protection**

Protective mask

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.

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form**Appearance**

Kit (Set of mixtures)

Odor

no data available

Melting point/freezing point

no data available

Boiling point, initial boiling point and boiling range

no data available

Flammability

no data available

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

Flash point

no data available

Auto-ignition temperature:

no data available

Decomposition temperature:

no data available

pH

no data available

Viscosity (coefficient of viscosity)

no data available

Dynamic viscosity

no data available

Solubilities

No data available

n-Octanol/water partition coefficient:(log Pow)	no data available
Vapour pressure	no data available
Specific Gravity / Relative density	no data available
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	Phosphorus oxide, Carbon monoxide (CO), Carbon dioxide (CO ₂)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerol	12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h
Poly(oxyethylene)sorbitan monolaurate	37000 mg/kg (Rat) 36700 µL/kg (Rat)	N/A	N/A
Ethylene Glycol	5890 - 13400 mg/kg (Rat)	9530 mg/kg (Rabbit)	2.7 mg/L (Rat) 4 h
Paraformaldehyde	800 mg/kg (Rat)	10000 mg/kg (Rabbit)	1.07 mg/L (Rat) 4 h
Potassium Hydroxide	273 mg/kg (Rat)	N/A	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Potassium Hydroxide	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
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Potassium Hydroxide	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
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.

Potassium Hydroxide	Based on the NITE GHS classification results.
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Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Glycerol	N/A	LC50: <i>Oncorhynchus mykiss</i>	EC50: <i>Daphnia magna</i>

		51 - 57 mL/L 96 h	500 mg/L 24 h
Polyethylene glycol p-octylphenyl ether	N/A	LC50 : <i>Lepomis macrochirus</i> 3 mg/L 96 h	N/A
Ethylene Glycol	ErC50 : <i>Pseudokirchneriella subcapitata</i> > 1000 mg/L 72 h	LC50 : <i>Oryzias latipes</i> > 100 mg/L 96 h	EC50 : <i>Daphnia magna</i> > 1120 mg/L 48 h
Paraformaldehyde	N/A	LC50 : <i>Lepomis macrochirus</i> 39.1 mg/L 96 h	N/A

Other data

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylene Glycol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Paraformaldehyde	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Potassium Hydroxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Persistence and degradability	No information available
Bioaccumulative potential	No information available
Mobility in soil	No information available
Hazard to the ozone layer	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 classification	
Subsidiary hazard class	
Packing group	
Marine pollutant	Not applicable
IMDG	Not regulated
UN number	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Marine pollutant (Sea)	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available
IATA	Not regulated
UN number	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	

Packing group
Environmentally Hazardous Substance Not applicable

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act	Category IV, Class III petroleums, dangerous grade 3 water-soluble
Poisonous and Deleterious Substances Control Law	Deleterious Substances 3rd. Grade
Industrial Safety and Health Act	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57) Notifiable Substances (Law Art.57-2) Group 2 Specified Chemical Substance Mutagens - Existing Chemicals Working Environment Evaluation Standards, Administrative Control Levels (Law Art.65-2, Para.1)
Industrial Safety and Health Act (2024~)	【2024.4.1~】 Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc	Priority Assessment Chemical Substances (Law Article 2, Para.5)
Regulations for the carriage and storage of dangerous goods in ship	Not applicable
Civil Aeronautics Law	Not applicable
Marine Pollution Prevention Law	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z
Pollutant Release and Transfer Register Law (2023.4.1-)	Class 1
Class 1 - No.	408,699
Water Pollution Control Act	Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3)
Export Trade Control Order	Not applicable

Pollution Release and Transfer Registry (~2023.3.31)

Class	Chemical Name in Regulation	(Metal Name)	Control number	Content Rate
Specified Class 1	Paraformaldehyde		699	<5
Class 1	Poly(oxyethylene) octylphenyl ethers		408	<15

Industrial Safety and Health Law

Law Name	Chemical Name in Regulation	Weight %	
Notifiable Substances (Law Art.57-2)	Ethylene glycol	<10	Existing Law
Notifiable Substances (Law Art.57-2)	Potassium hydroxide	<2	Existing Law
Notifiable Substances (Law Art.57-2)	Formaldehyde	<5	Existing Law

Poisonous and Deleterious Substances Control Law

SECTION	Chemical Name in Regulation
Deleterious Substances	Preparation containing Formaldehyde

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 Organic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
 etc

Record of SDS revisions

The following contents were revised. Regulatory information.

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 Z 7252:2019. *JIS: Japanese Industrial Standards

End of Safety Data Sheet