

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 01-Mar-2024
 Revision Number 2.04

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	DNA Extractor® WB Kit (Sodium Iodide method)
Product Code	291-50502

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

Flammable liquids	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Respiratory sensitization	Category 1
Germ cell mutagenicity	Category 1B
Reproductive Toxicity	Category 1A
Specific target organ toxicity (single exposure)	Category 1, Category 3
Category 1 central nervous system, kidneys, systemic toxicity	
Category 3 Respiratory irritation, Narcotic effects	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 liver	

Pictograms



Signal word

Danger

Hazard statements

- H225 - Highly flammable liquid and vapor
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H340 - May cause genetic defects
- H360 - May damage fertility or the unborn child
- H335 - May cause respiratory irritation
- H336 - May cause drowsiness or dizziness
- H370 - Causes damage to the following organs: central nervous system, kidneys, systemic toxicity
- H372 - Causes damage to the following organs through prolonged or repeated exposure: liver

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
- Wash face, hands and any exposed skin thoroughly after handling
- In case of inadequate ventilation wear respiratory protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- 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
- Keep cool

Precautionary statements-(Response)

- IF exposed: Call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention
- If skin irritation occurs: Get medical advice/attention
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Do NOT induce vomiting
- In case of fire: Use suitable extinguishing media for extinction

Precautionary statements-(Storage)

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

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
Lysis Solution	-	N/A	N/A	N/A	N/A-29-5050-1
Enzyme Reaction Solution	-	N/A	N/A	N/A	N/A-29-5050-2
Sodium Iodide Solution	-	N/A	N/A	N/A	N/A-29-5050-3
Washing Solution (A)	-	N/A	N/A	N/A	N/A-29-5050-4
Washing Solution (B)	-	N/A	N/A	N/A	N/A-29-5050-5
Protease	-	N/A	N/A	N/A	N/A-29-5050-6

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

Hazardous Component Isopropyl alcohol 40%, Ethanol 70%, Sodium Azide <0.1%, Sodium Iodide >60%, Sodium Dodecyl Sulfate >1%, Poly(oxyethylene) p-(1,1,3,3-tetramethylbutyl)phenyl ether >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. Vapors may form explosive mixtures with air

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

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

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.

Safe packaging material

Glass, Polypropylene

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
Ethanol 64-17-5	N/A	N/A	STEL: 1000 ppm
Sodium iodide 7681-82-5	N/A	N/A	TWA: 0.01 mg/m ³ I inhalable particulate matter Skin
2-Propanol 67-63-0	Ceiling: 400 ppm Ceiling: 980 mg/m ³ ISHL/ACL: 200 ppm	ISHL/ACL: 200 ppm	STEL: 400 ppm TWA: 200 ppm

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.

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

Highly flammable liquid and vapor

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

water : soluble .

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

Carbon monoxide (CO), Carbon dioxide (CO₂), Halides

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol	6200 mg/kg (Rat)	20000 mg/kg (Rabbit)	63000 ppmV (Rat) 4 h
Sodium iodide	4340 mg/kg (Rat)	N/A	N/A
2-Propanol	4384 mg/kg (Rat)	12870 mg/kg (Rabbit)	27908 ppmV (Rat) 4 h
Sodium Dodecyl Sulfate	1,200 mg/kg (Rat)	200 mg/kg (Rabbit)	> 3900 mg/m ³ (Rat) 1 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Ethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
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.
Sodium Dodecyl Sulfate	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
Ethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
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.
Sodium Dodecyl Sulfate	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
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.

Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.
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Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Ethanol 64-17-5	Known		A3	-
2-Propanol 67-63-0	-	Group 3		-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Ethanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Ethanol	EC50 : <i>Chlorella alga</i> 1000 mg/L 96 h	LC50 : <i>Oncorhynchus mykiss</i> 11200 ppm 96 h	EC50 : <i>Daphnia magna</i> 5463 mg/L 48 h

Sodium iodide	N/A	LC50 : rainbow trout 860 mg/L 96 h	N/A
2-Propanol	ErC50 : <i>Pseudokirchneriella subcapitata</i> > 1000 mg/L 72 h	LC50 : Orange-red Killish > 100 mg/L 96 h	EC50 : <i>Daphnia magna</i> > 1000 mg/L 48 h
Polyethylene glycol p-octylphenyl ether	N/A	LC50 : <i>Lepomis macrochirus</i> 3 mg/L 96 h	N/A
Sodium Dodecyl Sulfate	EC50: <i>Desmodesmus subspicatus</i> 53 mg/L 72 h	LC50: <i>Oncorhynchus mykiss</i> 4.3 - 8.5 mg/L 96 h	LC50 : <i>Acartia tonsa</i> 0.12 mg/L 96 h

Other data

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Ethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	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

UN number	UN1993
Proper shipping name:	Flammable liquid, n.o.s. (Isopropyl alcohol solution, ethanol solution)
UN classification	3
Subsidiary hazard class	
Packing group	III
Marine pollutant	Not applicable

IMDG

UN number	UN1993
Proper shipping name:	Flammable liquid, n.o.s. (Isopropyl alcohol solution, ethanol solution)
UN classification	3
Subsidiary hazard class	
Packing group	III
Marine pollutant (Sea)	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

IATA

UN number	UN1993
Proper shipping name:	Flammable liquid, n.o.s. (Isopropyl alcohol solution, ethanol solution)
UN classification	3
Subsidiary hazard class	

Packing group III
 Environmentally Hazardous Substance Not applicable

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act Category IV, alcohols, dangerous grade 2 water-soluble
Poisonous and Deleterious Substances Control Law Not applicable
Industrial Safety and Health Act Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57)
 Class 2 Organic Solvents (Enforcement Order Attached Table No.6-2, Ordinance on Prevention of Organic Solvent Poisoning Art.1, Para.1, Item 5)
 Notifiable Substances (Law Art.57-2)
 Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
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 Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
Civil Aeronautics Law Flammable Liquids (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
Marine Pollution Prevention Law Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z
Pollutant Release and Transfer Register Law (2023.4.1-) Class 1
Class 1 - No. 275,408
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
Class 1	Dodecyl sodium sulfate		275	>1
Class 1	Poly(oxyethylene) octylphenyl ethers		408	>1

Industrial Safety and Health Law

Law Name	Chemical Name in Regulation	Weight %	
Notifiable Substances (Law Art.57-2)	Ethanol	>60	Existing Law
Notifiable Substances (Law Art.57-2)	Propyl alcohol	<40	Existing Law
Notifiable Substances (Law Art.57-2)	Iodine and Iodine compounds	>60	Existing Law

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