

Safety Data Sheet (SDS)

Preparation Date 2013/04/20

Revision Date 2016/01/12

Section 1 - CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identification WDR11-A
 Product Code WDR11A0001
 Company Name PENTEL CO., LTD.
 Address 7-2, KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 048-928-6668
 Recommended Use ink
 and Restriction on Use
 LRN5/7, LRN5H, LRNT5, LR7/10, BLN15/23/25/75/
 105, BL17/27/30/57/77/107, BL60, BL80, BL110-A

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Serious eye damage/eye irritation Category 2
 Specific target organ toxicity (single exposure) Category 2 (respiratory apparatus, heart, kidney, central nervous system)
 Specific target organ toxicity (repeated exposure) Category 2 (respiratory apparatus, heart, central nervous system)
 Environmental Hazards Hazard to the aquatic environment (acute hazard) Category 2
 Hazard to the aquatic environment (long-term hazard) Category 2
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Warning
 Hazard Statements H320 Causes eye irritation
 H371 May cause damage to respiratory apparatus, heart, kidney, central nervous system
 H373 May cause damage to respiratory apparatus, heart, central nervous system through prolonged or repeated exposure
 H411 Toxic to aquatic life with long lasting effects
 Precautionary Statements
 Prevention Do not get in eyes, on skin, or on clothing
 Precautionary Statements

Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Dry chemicals, CO2, water spray or regular foam.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions

Pay attention not to cause the influence on the environment by discharging into rivers. This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. After removal, flush contaminated area thoroughly with water.

Methods and Equipment
for Containment and
Cleaning up

Vacuum or sweep up material and place in a disposal container.
Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Prevention Measures for
Secondary Accidents

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Wash hand thoroughly after handling.
Avoid swallowing.
Protect from high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures
Specific Hygiene
Measures

Refer to "Section 10 – STABILITY AND REACTIVITY".

Storage Precautionary
Statements

Technical Measures

The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods. Refer to "Section 10 – STABILITY AND REACTIVITY".
Have containers keep away from direct sunlight and heat.
Keep away from heat.
Store locked up.

Material Used in
Packaging/Container
s

Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Personal Protective
Equipment

Eye Protection

Wear eye protection.

Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	black
Odour		slight odor
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-Octanol/Water		No data available
Auto-Ignition		No data available
Decomposition Temperature		No data available
Viscosity		No data available
Kinematic viscosity		No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	For disposal, conform with the standards provided by related laws and local public bodies. Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact	No information available
Other Property	This information is furnished without warranty express or implied. This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes leagal responsibility for use of or reliance upon this information.

Response Precautionary Statements	IF exposed or concerned: Call a POISON CENTER/doctor/...(P308+P311) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.(P305+P351+P338) If eye irritation persists: Get medical advice and attention.(P337+P313) IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.(P301+P330+P331) IF ON SKIN: Gently wash with plenty of soap and water.(P302+P350) Store locked up.(P405)
Storage Precautionary Statements	
Disposal Precautionary Statements	Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance
or Mixture

mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCS No./ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Glycerin	8.79%	CH ₂ OHCH (OH)C H ₂ OH	(2)- 242,(7)- 338	Existing	56-81-5
Ethylene glycol	7%	HOCH ₂ CH 2OH	(2)-230	Existing	107-21-1
Ammonia	0.3%		(1)-391	Existing	7664-41-7
Triethanolamine	0.3%	N(CH ₂ CH ₂ OH) ₃	(2)-308	Existing	102-71-6
Thiodiglycol	9.5%	HOCH ₂ CH 2SCH ₂ C H ₂ OH	(2)-470	Existing	111-48-8

Impurities and/or
Stabilizing Additives which
Contribute to the

No information available

Section 4 – FIRST AID MEASURES

Inhalation

Remove person to fresh air and keep comfortable
for breathing.
Get medical advice and attention if you feel unwell.

Skin Contact

Immediately rinse skin with water.
Get medical advice and attention if you feel unwell.

Eye Contact

Wash with plenty of soap and water.
If skin irritation or rash occurs, get medical advice
and attention.
Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
When the ocular stimulation lasts, Seek medical
treatment and advice.

Ingestion

Rinse mouth. Do NOT induce vomiting.

Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Dry chemicals, CO2, water spray or regular foam.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions

Pay attention not to cause the influence on the environment by discharging into rivers. This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. After removal, flush contaminated area thoroughly with water.

Methods and Equipment
for Containment and
Cleaning up

Vacuum or sweep up material and place in a disposal container.
Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Prevention Measures for
Secondary Accidents

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Wash hand thoroughly after handling.
Avoid swallowing.
Protect from high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures
Specific Hygiene
Measures

Refer to "Section 10 – STABILITY AND REACTIVITY".

Storage Precautionary
Statements

Technical Measures

The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods. Refer to "Section 10 – STABILITY AND REACTIVITY".
Have containers keep away from direct sunlight and heat.
Keep away from heat.
Store locked up.

Material Used in
Packaging/Container
s

Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Personal Protective
Equipment

Eye Protection

Wear eye protection.

Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	black
Odour		slight odor
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-Octanol/Water		No data available
Auto-Ignition		No data available
Decomposition Temperature		No data available
Viscosity		No data available
Kinematic viscosity		No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	For disposal, conform with the standards provided by related laws and local public bodies. Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact	No information available
Other Property	This information is furnished without warranty express or implied. This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes leagal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2012/06/06

Revision Date 2015/03/11

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name WDR13-B
 Product Code WDR13B0001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Emergency Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Recommended Use ink
 and Restriction on Use

BL107-B, BL110-B, BL27-B, BL30-B, BL17-B, BL20-B,
 BLN77-B, BL77-B, BL57-B, BL60-B, LR7-B, LRN7-B, LR10-B

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Acute toxicity – inhalation(gas) Category 4
 Serious eye damage/eye irritation Category 2B
 Sensitization – respiratory Category 1
 Reproductive toxicity Category 2
 Specific target organ toxicity(single exposure)
 Category 2(respiratory
 apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity(repeated exposure)
 Category 2(central nervous
 system,liver,respiratory apparatus,heart,kidney)

Environmental Hazards Acute hazards to the aquatic environment
 Category 2
 Chronic hazards to the aquatic environment
 Category 2
 Other hazards than mentioned above are Not
 applicable or No data available.

GHS Label Elements
Symbols

Signal Word Danger

Hazard Statements
 H320 Causes eye irritation
 H332 Harmful if inhaled
 H334 May cause allergy or asthma symptoms or
 breathing difficulties if inhaled
 H361 Suspected of damaging fertility or the unborn
 child
 H371 May cause damage to respiratory
 apparatus,heart,kidney,central nervous system.
 H373 May cause damage to liver,respiratory
 apparatus,heart,kidney,central nervous system
 through prolonged or repeated exposure.
 H401 Toxic to aquatic life
 H411 Toxic to aquatic life with long lasting effects

Precautional
Statements
Prevention
Precautionary
Statements

Obtain special instructions before use.(P201)

Do not handle until all safety precautions have
 been read and understood.(P202)
 Do not breathe mist, vapours and spray.(P260)
 Avoid breathing gas.(P261)
 Wash hands thoroughly after handling.(P264)

Response Precautionary Statements	<p>Wash eye thoroughly after handling.(P264) Do not eat, drink or smoke when using this product.(P270) Use only outdoors or in a well-ventilated area.(P271) Avoid release to the environment.(P273) Use personal protective equipment as required.(P281) In case of inadequate ventilation wear respiratory protection.(P285) IF INHALED: Call a doctor if you feel unwell.(P304+P312)</p> <p>IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.(P304+P341) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.(P305+P351+P338) IF exposed or if you feel unwell: Call a doctor.(P309+P311) Get medical advice and attention if you feel unwell.(P314) If eye irritation persists: Get medical advice and attention.(P337+P313) If experiencing respiratory symptoms: Call a doctor.(P342+P311) Collect spillage.(P391) Store locked up.(P405)</p>
Storage Precautionary Statements Disposal Precautionary Statements	<p>Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)</p>

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance or Mixture mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCs No./ISHL No.		CAS RN
			ENCs No.	ISHL No.	
glycerin	7.3%	CH2OHCH(OH)C H2OH	(2)-242,(7)-338	Existing	56-81-5
ethylene glycol	9.7%	HOCH2CH2OH	(2)-230	Existing	107-21-1
diethylene glycol	7.3%	HOCH2CH2OCH2C H2OH	(2)-415,(2)-2979	Existing	111-46-6

Impurities and/or Stabilizing Additives which Contribute to the Classification No information available

Section 4 – FIRST AID MEASURES

Inhalation	<p>If breathing is difficult, move affected person to the open air. Keep him or her at rest to allow easier breathing. Get medical advice and attention if you feel unwell.</p>
Skin Contact	<p>Wash with soap and plenty of water. If skin irritation or rash occurs: Get medical advice and attention.</p>
Eye Contact	<p>Wash eyes carefully for several minutes with water. Take off contact lenses if easily removed, and continue to wash eyes afterwards. When the ocular stimulation lasts, Seek medical treatment and advice.</p>
Ingestion	<p>Rinse a mouth. Don't make vomit by force.</p>

Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Carbon dioxide, dry chemicals, water sprinkling, and general foam extinguishing agents

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions,
Protective Equipment and
Emergency Procedures
Environmental
Precautions

No information available

Decontamination/Absorption/
Sweeping/Vacuuming/
Neutralization

Pay attention not to cause the influence on the environment by discharging into rivers.
This product is water pollutant. Prevent soil contamination, or the product from flowing into the drain systems.

Collect the material into a disposal container by sucking up or sweeping up.

Methods and Equipment
for Containment and
Cleaning up
Prevention Measures for
Secondary Accidents

Absorb spills with inert materials (such as dry sand or soil) and collect them into chemical-waste disposal container.

Cleansing the contaminated area thoroughly with water after removal.

Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and Use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL

Local and General
Ventilation

Provide local ventilations and a full ventilation system as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."

Precautions for Safe
Handling

Avoid the contact with eyes.

Wash hands thoroughly after handling.
Avoid swallowing
Avoid high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures

Refer to "10. STABILITY AND REACTIVITY"

Storage Precautionary
Statements

Technical Measures

The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods.

Incompatible
Substances or
Mixtures

Refer to "10. STABILITY AND REACTIVITY"

Storage Conditions

Have containers keep away from direct sunlight and heat.
Keep away from heat.
Store locked up.

Material Used in
Packaging/Containers

Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

A general proper ventilation is enough to control concentration in air.

Personal Protective
Equipment

Respiratory
Protection

No information available

Eye Protection

Use an adequate personal eye protector.
Goggles (ordinary glass type, ordinary glass type with side shields, and goggle type)

Specific Hygiene Measures

Wash hands thoroughly after handling.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid (viscous liquid)
	Colour	red
	Odour	slight odor
	pH	No data available
Initial Boiling Point and Boiling Ranges		No information available
Flash Point		no data available
Auto-Ignition		No information available

Section 10 – STABILITY AND REACTIVITY

Stability		The material is stable under storage and handling conditions comprised with the regulations.
Possibility of Hazardous Reaction		No data available
Conditions to Avoid		No data available
Hazardous Decomposition Products		No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity		No information available
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Section 12 – ECOLOGICAL INFORMATION

	Environmental Hazards	No information available
Ecotoxicity		No information available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste		For disposal, conform with the standards provided by related laws and local public bodies. Commission the authorized waste disposal company, or a local public body who conducts the disposal, to dispose of the material.
Contaminated Container and Packaging		Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact		No information available
Other Property		This information is furnished without warranty express or implied. This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2014/08/12

Revision Date 2016/01/12

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier WDR20-C
 Product Code WDR20C0001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 048-928-6668
 Recommended Use and Restriction on Use ink
 BLN15/23/25/55/75/77/105,BL17/20/27/30/57/60/77/80/107/110,LRN5/7,LR7/10,LRNT5-C

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure) Category 1(respiratory apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity (repeated exposure) Category 1(respiratory apparatus,heart,central nervous system)
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Danger
 Hazard Statements H320 Causes eye irritation
 H370 Causes damage to respiratory apparatus,heart,kidney,central nervous system
 H372 Causes damage to respiratory apparatus,heart,central nervous system through prolonged or repeated exposure
 Precautionary Statements Prevention
 Precautionary Statements Do not breathe mist, vapours and spray.(P260)
 Wash hand thoroughly after handling.(P264)
 Wash eye thoroughly after handling.(P264)
 Do not eat, drink or smoke when using this product.(P270)

Prevention Measures for Secondary Accidents	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. After removal, flush contaminated area thoroughly with water. Prevent flowing into drain, sewage, basement, and closed area. Remove thoroughly since the smooth and slippery surface will be formed on the floor.
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Section 7 – HANDLING AND STORAGE

Handling	Technical Measures	Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".
	Precautions for Safe Handling	Wash hand thoroughly after handling. Avoid swallowing. Avoid contact with eyes. Protect from high temperature and direct sunlight.
Storage Precautionary Statements	Prevents Handling of Incompatible Substances or Mixtures	Refer to "Section 10 – STABILITY AND REACTIVITY".
	Technical Measures	Refer to "Section 10 – STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Keep away from heat.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection	Use personal respiratory equipment as required.
	Hand Protection	Use personal gloves as required.
	Eye Protection	Use personal eye protection as required.
	Skin and Body Protection	Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	blue
Odour		odorless
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available

Partition Coefficient : n- Octanol/Water	No data available
Auto-Ignition	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Kinematic viscosity	No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	Disposal should be in accordance with applicable regulations and standards by the respective local governments. Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable

	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
Regulations in Japan	Regulatory Information by Air	Not applicable
	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact
Other Property

No information available
This information is furnished without warranty express or implied.
This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2014/08/12

Revision Date 2016/01/12

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier WDR20-D
 Product Code WDR20D0001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 048-928-6668
 Recommended Use ink
 and Restriction on Use
 BLN75,BLN77,BL17,BL27,BL57,BL60,BL77,BL80,BL107,LR7,LRN5-D

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure)
 Category 1(respiratory apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity (repeated exposure)
 Category 1(respiratory apparatus,heart,central nervous system)
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Danger
 Hazard Statements H320 Causes eye irritation
 H370 Causes damage to respiratory apparatus,heart,kidney,central nervous system
 H372 Causes damage to respiratory apparatus,heart,central nervous system through prolonged or repeated exposure
 Precautionary Statements
 Prevention Do not breathe mist, vapours and spray.(P260)
 Precautionary Statements
 Wash hand thoroughly after handling.(P264)
 Wash eye thoroughly after handling.(P264)
 Do not eat, drink or smoke when using this product.(P270)

Response
Precautionary
Statements
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.(P305+P351+P338)
IF exposed or concerned: Call a POISON CENTER/doctor/...(P308+P311)
Get medical advice and attention if you feel unwell.(P314)
Specific treatment.(P321)
If eye irritation persists: Get medical advice and attention.(P337+P313)
Store locked up.(P405)

Storage
Precautionary
Statements

Disposal
Precautionary
Statements
Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance
or Mixture
mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCS No./ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Ethylene glycol	12.6%	HOCH ₂ CH ₂ OH	(2)-230	Existing	107-21-1
Glycerin	8.6%	CH ₂ OHCH(OH)C ₂ H ₄ OH	(2)-242,(7)-338	Existing	56-81-5
Thiodiglycol	9.4%	HOCH ₂ CH ₂ SCH ₂ CH ₂ OH	(2)-470	Existing	111-48-8

Impurities and/or
Stabilizing Additives which
Contribute to the
No information available

Section 4 – FIRST AID MEASURES

Inhalation
Skin Contact
Eye Contact
Call a doctor if you feel unwell.
Wash with soap and water.
Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
When the ocular stimulation lasts, Seek medical treatment and advice.

Ingestion
Rinse mouth. Do NOT induce vomiting.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media
Dry chemicals, CO₂, water spray or regular foam.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions
Pay attention not to cause the influence on the environment by discharging into rivers.
This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
Vacuum or sweep up material and place in a disposal container.

Methods and Equipment
for Containment and
Cleaning up

Prevention Measures for Secondary Accidents	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. After removal, flush contaminated area thoroughly with water. Prevent flowing into drain, sewage, basement, and closed area. Remove thoroughly since the smooth and slippery surface will be formed on the floor.
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Section 7 – HANDLING AND STORAGE

Handling	Technical Measures	Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".
	Precautions for Safe Handling	Wash hand thoroughly after handling. Avoid swallowing. Avoid contact with eyes. Protect from high temperature and direct sunlight.
Storage Precautionary Statements	Prevents Handling of Incompatible Substances or Mixtures	Refer to "Section 10 – STABILITY AND REACTIVITY".
	Technical Measures	Refer to "Section 10 – STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Keep away from heat.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection	Use personal respiratory equipment as required.
	Hand Protection	Use personal gloves as required.
	Eye Protection	Use personal eye protection as required.
	Skin and Body Protection	Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	green
Odour		odorless
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available

Partition Coefficient : n- Octanol/Water	No data available
Auto-Ignition	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Kinematic viscosity	No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	Disposal should be in accordance with applicable regulations and standards by the respective local governments. Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable

	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
Regulations in Japan	Regulatory Information by Air	Not applicable
	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact
Other Property

No information available
This information is furnished without warranty express or implied.
This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes leagal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2014/08/12

Revision Date 2016/01/12

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier WDR20-V
 Product Code WDR20V0001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 048-928-6668
 Recommended Use and Restriction on Use ink

BLN15,BLN25,BLN75,BLN77,BL17,BL27,BL57,BL60,BL77,BL80,BL107,LRN7,LR7,LR10-V

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure) Category 1(respiratory apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity (repeated exposure) Category 1(respiratory apparatus,heart,central nervous system)
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Danger
 Hazard Statements H320 Causes eye irritation
 H370 Causes damage to respiratory apparatus,heart,kidney,central nervous system
 H372 Causes damage to respiratory apparatus,heart,central nervous system through prolonged or repeated exposure
 Precautionary Statements
 Prevention Do not breathe mist, vapours and spray.(P260)
 Precautionary Statements
 Wash hand thoroughly after handling.(P264)
 Wash eye thoroughly after handling.(P264)
 Do not eat, drink or smoke when using this product.(P270)

Response
Precautionary
Statements
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.(P305+P351+P338)
IF exposed or concerned: Call a POISON CENTER/doctor/...(P308+P311)
Get medical advice and attention if you feel unwell.(P314)
Specific treatment.(P321)
If eye irritation persists: Get medical advice and attention.(P337+P313)
Store locked up.(P405)

Storage
Precautionary
Statements

Disposal
Precautionary
Statements
Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance
or Mixture
mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCs No./ISHL No.		CAS RN
			ENCs No.	ISHL No.	
Ethylene glycol	12.6%	HOCH ₂ CH ₂ OH	(2)-230	Existing	107-21-1
Glycerin	8.6%	CH ₂ OHCH(OH)C ₂ H ₄ OH	(2)-242,(7)-338	Existing	56-81-5
Thiodiglycol	9.4%	HOCH ₂ CH ₂ SCH ₂ CH ₂ OH	(2)-470	Existing	111-48-8

Impurities and/or
Stabilizing Additives which
Contribute to the
No information available

Section 4 – FIRST AID MEASURES

Inhalation
Skin Contact
Eye Contact
Call a doctor if you feel unwell.
Wash with soap and water.
Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
When the ocular stimulation lasts, Seek medical treatment and advice.

Ingestion
Rinse mouth. Do NOT induce vomiting.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media
Dry chemicals, CO₂, water spray or regular foam.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions
Pay attention not to cause the influence on the environment by discharging into rivers.
This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
Vacuum or sweep up material and place in a disposal container.

Methods and Equipment
for Containment and
Cleaning up

Prevention Measures for Secondary Accidents	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. After removal, flush contaminated area thoroughly with water. Prevent flowing into drain, sewage, basement, and closed area. Remove thoroughly since the smooth and slippery surface will be formed on the floor.
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Section 7 – HANDLING AND STORAGE

Handling	Technical Measures	Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".
	Precautions for Safe Handling	Wash hand thoroughly after handling. Avoid swallowing. Avoid contact with eyes. Protect from high temperature and direct sunlight.
Storage Precautionary Statements	Prevents Handling of Incompatible Substances or Mixtures	Refer to "Section 10 – STABILITY AND REACTIVITY".
	Technical Measures	Refer to "Section 10 – STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Keep away from heat.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection	Use personal respiratory equipment as required.
	Hand Protection	Use personal gloves as required.
	Eye Protection	Use personal eye protection as required.
	Skin and Body Protection	Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	purple
Odour		odorless
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available

Partition Coefficient : n- Octanol/Water	No data available
Auto-Ignition	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Kinematic viscosity	No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	Disposal should be in accordance with applicable regulations and standards by the respective local governments. Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable

	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
Regulations in Japan	Regulatory Information by Air	Not applicable
	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact
Other Property

No information available
This information is furnished without warranty express or implied.
This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2012/01/13
Revision Date 2016/01/.

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name WDR21-F
 Product Code WDR21F0001
 Company Name PENTEL CO., LTD.
 Address 7-2, KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Emergency Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Recommended Use ink
 and Restriction on Use
 LR7-F, BL77-F, BL107FF-F

Section 2 - HAZARDS IDENTIFICATION
GHS Classification

No classification standards applicable

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance or Mixture mixture

Chemical Name or Generic Name	Concentration or Ranges	Formula	ENCS No./ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Glycerin	11.5%	CH ₂ OHCH(OH)CH ₂ OH	(2)-242, (7)-338	Existing	56-81-5
Ethylene glycol	5%	HOCH ₂ CH ₂ OH	(2)-230	Existing	107-21-1
Thiodiethylene glycol	9%	HOCH ₂ CH ₂ SCH ₂ CH ₂ OH	(2)-470	Existing	111-48-8
Triethanolamine	0.7%	N(CH ₂ CH ₂ OH) ₃	(2)-308	Existing	102-71-6

Impurities and/or Stabilizing Additives which Contribute to the Classification No information available

Section 4 - FIRST AID MEASURES

Inhalation

If breathing is difficult, move affected person to the open air. Keep him or her at rest to allow easier breathing.
 Get medical advice and attention if you feel

Skin Contact

Wash with soap and plenty of water.
 If skin irritation or rash occurs: Get medical advice and attention.

Eye Contact

Wash eyes carefully for several minutes with water. Take off contact lenses if easily removed and continue to wash eyes afterwards.
 When the ocular stimulation lasts, Seek medical treatment and advice.

Ingestion

Rinse a mouth. Don't make vomit by force.
 Get medical advice and attention if you feel

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Carbon dioxide, dry chemicals, water sprinklers, general foam extinguishing agents

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures Environmental Precautions		No information available
Decontamination/Absorption/ Sweeping/Vacuuming/ Neutralization		Pay attention not to cause the influence on the environment by discharging into rivers. This product is water pollutant. Prevent soil contamination, or the product from flowing into the drain systems. Collect the material into a disposal container by sucking up or sweeping up. Absorb spills with inert materials (such as dry sand or soil) and collect them into chemical-waste disposal container.
Methods and Equipment for Containment and Cleaning up Prevention Measures for Secondary Accidents		Cleansing the contaminated area thoroughly with water after removal. Prevent flowing into drain, sewage, basement, and closed area. Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling	Technical Measures	Provide ventilation system and Use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL
	Local and General Ventilation	Provide local ventilations and a full ventilation system as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."
	Precautions for Safe Handling	Avoid the contact with eyes. Wash hands thoroughly after handling. Avoid swallowing Avoid high temperature and direct sunlight.
	Prevents Handling of Incompatible Substances or Mixtures	Refer to "10. STABILITY AND REACTIVITY"
	Storage Precautionary Statements	Technical Measures
	Incompatible Substances or Mixtures	
	Storage Conditions	Have containers keep away from direct sunlight and heat. Keep away from heat. Store locked up.
	Material Used in Packaging/Containers	Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		A general proper ventilation is enough to control concentration in air.
Personal Protective Equipment	Respiratory Protection Eye Protection	No information available Use an adequate personal eye protector. Goggles (ordinary glass type, ordinary glass type with side shields, and goggle type)
Specific Hygiene Measures		Wash hands thoroughly after handling.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid (viscous liquid)
	Colour	orange
	Odour	slight odor
	pH	No data available
Initial Boiling Point and Boiling Ranges		No information available
Flash Point		no data available
Auto-Ignition		No information available
Section 10 – STABILITY AND REACTIVITY		
Stability		The material is stable under storage and handling conditions comprised with the regulations.
Possibility of Hazardous Reaction		No data available
Conditions to Avoid		No data available
Hazardous Decomposition Products		No data available
Section 11 – TOXICOLOGICAL INFORMATION		
Acute Toxicity		No information available
Section 12 – ECOLOGICAL INFORMATION		
	Environmental Hazards	No information available
Ecotoxicity		No information available
Section 13 – DISPOSAL CONSIDERATIONS		
Residual Waste		For disposal, conform with the standards provided by related laws and local public bodies. Commission the authorized waste disposal company, or a local public body who conducts the disposal, to dispose of the material.
Contaminated Container and Packaging		Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.
Section 14 – TRANSPORT INFORMATION		
International Regulations	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Section 15 – REGULATORY INFORMATION		
		Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.
Section 16 – OTHER INFORMATION		
Information Contact		No information available
Other Property		This information is furnished without warranty express or implied.

This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2013/11/21
Revision Date 2016/01/.

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name WDR21-P
 Product Code WDR21P0001
 Company Name PENTEL CO., LTD.
 Address 7-2, KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Emergency Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Recommended Use ink
 and Restriction on Use
 LR7-P, BL77-P, BL107FP-P

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

No classification standards applicable

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance or Mixture mixture

Chemical Name or Generic Name	Concentration or Ranges	Formula	ENCS No. / ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Glycerin	11.5%	CH ₂ OHCH(OH)CH ₂ OH	(2)-242, (7)-338	Existing	56-81-5
Ethylene glycol	5%	HOCH ₂ CH ₂ OH	(2)-230	Existing	107-21-1
Thiodiethylene glycol	9%	HOCH ₂ CH ₂ SCH ₂ CH ₂ OH	(2)-470	Existing	111-48-8
Triethanolamine	0.7%	N(CH ₂ CH ₂ OH) ₃	(2)-308	Existing	102-71-6

Impurities and/or Stabilizing Additives which Contribute to the Classification No information available

Section 4 - FIRST AID MEASURES

Inhalation

If breathing is difficult, move affected person to the open air. Keep him or her at rest to allow easier breathing.
 Get medical advice and attention if you feel

Skin Contact

Wash with soap and plenty of water.
 If skin irritation or rash occurs: Get medical advice and attention.

Eye Contact

Wash eyes carefully for several minutes with water. Take off contact lenses if easily removed and continue to wash eyes afterwards.
 When the ocular stimulation lasts, Seek medical treatment and advice.

Ingestion

Rinse a mouth. Don't make vomit by force.
 Get medical advice and attention if you feel

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Carbon dioxide, dry chemicals, water sprinklers, general foam extinguishing agents

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures Environmental Precautions		No information available
Decontamination/Absorption/ Sweeping/Vacuuming/ Neutralization		Pay attention not to cause the influence on the environment by discharging into rivers. This product is water pollutant. Prevent soil contamination, or the product from flowing into the drain systems. Collect the material into a disposal container by sucking up or sweeping up. Absorb spills with inert materials (such as dry sand or soil) and collect them into chemical-waste disposal container.
Methods and Equipment for Containment and Cleaning up Prevention Measures for Secondary Accidents		Cleansing the contaminated area thoroughly with water after removal. Prevent flowing into drain, sewage, basement, and closed area. Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling	Technical Measures	Provide ventilation system and Use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."
	Local and General Ventilation	Provide local ventilations and a full ventilation system as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."
	Precautions for Safe Handling	Avoid the contact with eyes. Wash hands thoroughly after handling. Avoid swallowing Avoid high temperature and direct sunlight.
	Prevents Handling of Incompatible Substances or Mixtures	Refer to "10. STABILITY AND REACTIVITY"
	Storage Precautionary Statements	Technical Measures
	Incompatible Substances or Mixtures	
	Storage Conditions	Have containers keep away from direct sunlight and heat. Keep away from heat. Store locked up.
	Material Used in Packaging/Containers	Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		A general proper ventilation is enough to control concentration in air.
Personal Protective Equipment	Respiratory Protection Eye Protection	No information available Use an adequate personal eye protector. Goggles (ordinary glass type, ordinary glass type with side shields, and goggle type)
Specific Hygiene Measures		Wash hands thoroughly after handling.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid (viscous liquid)
	Colour	pink
	Odour	slight odor
	pH	No data available
Initial Boiling Point and Boiling Ranges		No information available
Flash Point		no data available
Auto-Ignition		No information available
Section 10 – STABILITY AND REACTIVITY		
Stability		The material is stable under storage and handling conditions comprised with the regulations.
Possibility of Hazardous Reaction		No data available
Conditions to Avoid		No data available
Hazardous Decomposition Products		No data available
Section 11 – TOXICOLOGICAL INFORMATION		
Acute Toxicity		No information available
Section 12 – ECOLOGICAL INFORMATION		
	Environmental Hazards	No information available
Ecotoxicity		No information available
Section 13 – DISPOSAL CONSIDERATIONS		
Residual Waste		For disposal, conform with the standards provided by related laws and local public bodies. Commission the authorized waste disposal company, or a local public body who conducts the disposal, to dispose of the material.
Contaminated Container and Packaging		Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.
Section 14 – TRANSPORT INFORMATION		
International Regulations	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Section 15 – REGULATORY INFORMATION		
		Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.
Section 16 – OTHER INFORMATION		
Information Contact		No information available
Other Property		This information is furnished without warranty express or implied.

This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2012/01/13
Revision Date 2016/01/.

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name WDR21-S
 Product Code WDR21S0001
 Company Name PENTEL CO., LTD.
 Address 7-2, KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Emergency Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Recommended Use ink
 and Restriction on Use
 LR7-S, BL77-S, BL77FS-S

Section 2 - HAZARDS IDENTIFICATION
GHS Classification

No classification standards applicable

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance or Mixture mixture

Chemical Name or Generic Name	Concentration or Ranges	Formula	ENCS No./ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Glycerin	11.5%	CH ₂ OHCH(OH)CH ₂ OH	(2)-242, (7)-338	Existing	56-81-5
Ethylene glycol	5%	HOCH ₂ CH ₂ OH	(2)-230	Existing	107-21-1
Thiodiethylene glycol	9%	HOCH ₂ CH ₂ SCH ₂ CH ₂ OH	(2)-470	Existing	111-48-8
Triethanolamine	0.7%	N(CH ₂ CH ₂ OH) ₃	(2)-308	Existing	102-71-6

Impurities and/or Stabilizing Additives which Contribute to the Classification No information available

Section 4 - FIRST AID MEASURES

Inhalation

If breathing is difficult, move affected person to the open air. Keep him or her at rest to allow easier breathing.
 Get medical advice and attention if you feel

Skin Contact

Wash with soap and plenty of water.
 If skin irritation or rash occurs: Get medical advice and attention.

Eye Contact

Wash eyes carefully for several minutes with water. Take off contact lenses if easily removed and continue to wash eyes afterwards.
 When the ocular stimulation lasts, Seek medical treatment and advice.

Ingestion

Rinse a mouth. Don't make vomit by force.
 Get medical advice and attention if you feel

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Carbon dioxide, dry chemicals, water sprinkler, general foam extinguishing agents

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures Environmental Precautions		No information available
Decontamination/Absorption/ Sweeping/Vacuuming/ Neutralization		Pay attention not to cause the influence on the environment by discharging into rivers. This product is water pollutant. Prevent soil contamination, or the product from flowing into the drain systems. Collect the material into a disposal container by sucking up or sweeping up. Absorb spills with inert materials (such as dry sand or soil) and collect them into chemical-waste disposal container.
Methods and Equipment for Containment and Cleaning up Prevention Measures for Secondary Accidents		Cleansing the contaminated area thoroughly with water after removal. Prevent flowing into drain, sewage, basement, and closed area. Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling	Technical Measures	Provide ventilation system and Use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL
	Local and General Ventilation	Provide local ventilations and a full ventilation system as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."
Storage Precautionary Statements	Precautions for Safe Handling	Avoid the contact with eyes. Wash hands thoroughly after handling. Avoid swallowing Avoid high temperature and direct sunlight.
	Prevents Handling of Incompatible Substances or Mixtures	Refer to "10. STABILITY AND REACTIVITY"
	Technical Measures	The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods. Refer to "10. STABILITY AND REACTIVITY"
	Incompatible Substances or Mixtures Storage Conditions	Have containers keep away from direct sunlight and heat. Keep away from heat. Store locked up.
	Material Used in Packaging/Containers	Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		A general proper ventilation is enough to control concentration in air.
Personal Protective Equipment	Respiratory Protection Eye Protection	No information available Use an adequate personal eye protector. Goggles (ordinary glass type, ordinary glass type with side shields, and goggle type)
Specific Hygiene Measures		Wash hands thoroughly after handling.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid (viscous liquid)
	Colour	skyblue
	Odour	slight odor
	pH	No data available
Initial Boiling Point and Boiling Ranges		No information available
Flash Point		no data available
Auto-Ignition		No information available
Section 10 – STABILITY AND REACTIVITY		
Stability		The material is stable under storage and handling conditions comprised with the regulations.
Possibility of Hazardous Reaction		No data available
Conditions to Avoid		No data available
Hazardous Decomposition Products		No data available
Section 11 – TOXICOLOGICAL INFORMATION		
Acute Toxicity		No information available
Section 12 – ECOLOGICAL INFORMATION		
	Environmental Hazards	No information available
Ecotoxicity		No information available
Section 13 – DISPOSAL CONSIDERATIONS		
Residual Waste		For disposal, conform with the standards provided by related laws and local public bodies. Commission the authorized waste disposal company, or a local public body who conducts the disposal, to dispose of the material.
Contaminated Container and Packaging		Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.
Section 14 – TRANSPORT INFORMATION		
International Regulations	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	UN No.	Not applicable
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Not applicable
	UN No.	Not applicable
Section 15 – REGULATORY INFORMATION		
		Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.
Section 16 – OTHER INFORMATION		
Information Contact		No information available
Other Property		This information is furnished without warranty express or implied.

This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2016/07/21

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier WDR21-CA
 Product Code WDR21CA001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 03-5695-7210
 Fax Number 03-5645-8204
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 03-5695-7210
 Recommended Use and Restriction on Use ink
 BL77-CAX,BL77-CABR,LR7-CAX,LR7CABRPAF

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Acute toxicity – inhalation (mist) Category 4
 Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure) Category 2(respiratory apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity (repeated exposure) Category 2(respiratory apparatus,heart,central nervous system)
 Other hazards than mentioned above are Not applicable or Classification not possible.

GHS Label Elements

Symbols



Signal Word Warning
 Hazard Statements H320 Causes eye irritation
 H332 Harmful if inhaled
 H371 May cause damage to respiratory apparatus,heart,kidney,central nervous system
 H373 May cause damage to respiratory apparatus,heart,central nervous system through prolonged or repeated exposure
 Precautionary Statements
 Prevention Do not breathe mist, vapours and spray.(P260)
 Precautionary Statements
 Avoid breathing mist, vapours and spray.(P261)
 Wash hand thoroughly after handling.(P264)
 Wash eye thoroughly after handling.(P264)
 Do not eat, drink or smoke when using this product.(P270)

Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Small fires: Dry chemical, CO2, water spray or regular foam.

Protection of Fire Figther

In fire fighting, wear respiratory protection and chemical protective clothing.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions

Pay attention not to cause the influence on the environment by discharging into rivers.
This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
After removal, flush contaminated area thoroughly with water.

Methods and Equipment
for Containment and
Cleaning up
Prevention Measures for
Secondary Accidents

Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Avoid contact with eyes.
Wash hand thoroughly after handling.
Avoid swallowing.
Protect from high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures
Specific Hygine
Measures

Refer to "Section 10 – STABILITY AND REACTIVITY".

Storage Precautionary
Statements

Technical Measures

Have containers keep away from direct sunlight and heat.
Keep away from heat.
Store locked up.

Material Used in
Packaging/Container
s

Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Personal Protective
Equipment

Respiratory
Protection

Use personal respiratory equipment as required.

Hand Protection

Use personal gloves as required.

Eye Protection

Use personal eye protection as required.

Skin and Body
Protection

Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State

liquid

	Form	liquid (viscous liquid)
	Colour	Blue Black
Odour		slight odor
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		No data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-Octanol/Water		No data available
Auto-Ignition		No data available
Decomposition Temperature		No data available
Viscosity		No data available
Kinematic viscosity		No data available
Section 10 – STABILITY AND REACTIVITY		
Reactivity		No data available
Chemical stability		No data available
Possibility of Hazardous Reaction		No data available
Conditions to Avoid		No data available
Incompatible Substances or Mixtures		No data available
Hazardous Decomposition Products		No data available
Section 11 – TOXICOLOGICAL INFORMATION		
Acute Toxicity		No information available
Skin Corrosion/Irritation		No data available
Serious eye damage/eye irritation		No data available
Respiratory or Skin Sensitization		No data available
Germ Cell Mutagenicity		No data available
Carcinogenicity		No data available
Reproductive Toxicity		No data available
Specific target organ toxicity (single exposure)		No data available
Specific target organ toxicity (repeated exposure)		No data available
Aspiration Hazard		No data available
Section 12 – ECOLOGICAL INFORMATION		
Hazardous to the aquatic environment (acute)		No data available
Hazardous to the aquatic environment (long-term)		No data available

Hazardous to the ozone layer
No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste
Disposal should be in accordance with applicable regulations and standards by the respective local governments.
Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.

Contaminated Container and Packaging
Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II ,and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk according to MARPOL 73/78, Annex II ,and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact
Other Property
No information available
This information is furnished without warranty express or implied.
This information is believed to be accurate to the best knowledge of PENDEL Co., Ltd. but not assumes leagal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2016/07/21

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier WDR21-E
 Product Code WDR21E0001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 03-5695-7210
 Fax Number 03-5645-8204
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 03-5695-7210
 Recommended Use ink
 and Restriction on Use
 BL77-EX,BL77-EBR,LR7-EX,LR7EBRPAF

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Acute toxicity – inhalation (mist) Category 4
 Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure)
 Category 2(respiratory
 apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity (repeated exposure)
 Category 2(respiratory apparatus,heart,central
 nervous system)
 Other hazards than mentioned above are Not
 applicable or Classification not possible.

GHS Label Elements

Symbols



Signal Word Warning
 Hazard Statements H320 Causes eye irritation
 H332 Harmful if inhaled
 H371 May cause damage to respiratory
 apparatus,heart,kidney,central nervous system
 H373 May cause damage to respiratory
 apparatus,heart,central nervous system through
 prolonged or repeated exposure
 Precautionary
 Statements
 Prevention Do not breathe mist, vapours and spray.(P260)
 Precautionary
 Statements Avoid breathing mist, vapours and spray.(P261)
 Wash hand thoroughly after handling.(P264)
 Wash eye thoroughly after handling.(P264)
 Do not eat, drink or smoke when using this
 product.(P270)

Response Precautionary Statements	Use only outdoors or in a well-ventilated area.(P271) IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.(P304+P340) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.(P305+P351+P338) IF exposed or concerned: Call a POISON CENTER/doctor/...(P308+P311) Call a doctor if you feel unwell.(P312) Get medical advice and attention if you feel unwell.(P314) If eye irritation persists: Get medical advice and attention.(P337+P313)
Storage Precautionary Statements	Store locked up.(P405)
Disposal Precautionary Statements	Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance
or Mixture

Mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCs No./ISHL No.		CAS RN
			ENCs No.	ISHL No.	
Glycerin	11.5%	CH ₂ OHCH (OH)C H ₂ OH	(2)- 242,(7)- 338	Existing	56-81-5
Ethylene glycol	5%	HOCH ₂ CH 2OH	(2)-230	Existing	107-21-1
Thiodiethylene glycol	9%	HOCH ₂ CH 2SCH ₂ C H ₂ OH	(2)-470	Existing	111-48-8
Triethanolamine	0.7%	N(CH ₂ CH ₂ OH) ₃	(2)-308	Existing	102-71-6

Impurities and/or
Stabilizing Additives which
Contribute to the

No information available

Section 4 – FIRST AID MEASURES

Inhalation

If breathing is difficult, move affected person to the open air. Keep him or her at rest to allow easier breathing.

Get medical advice and attention if you feel unwell.

Skin Contact

Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice and attention.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical advice and attention if you feel unwell.

Ingestion Rinse mouth. Do NOT induce vomiting.
Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Small fires: Dry chemical, CO₂, water spray or regular foam.

Protection of Fire Figther

In fire fighting, wear respiratory protection and chemical protective clothing.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions

Pay attention not to cause the influence on the environment by discharging into rivers.
This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
After removal, flush contaminated area thoroughly with water.

Methods and Equipment
for Containment and
Cleaning up
Prevention Measures for
Secondary Accidents

Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Avoid contact with eyes.

Wash hand thoroughly after handling.
Avoid swallowing.

Protect from high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures
Specific Hygiene
Measures

Refer to "Section 10 – STABILITY AND REACTIVITY".

Wash hand thoroughly after handling.

Storage Precautionary
Statements

Technical Measures

Have containers keep away from direct sunlight and heat.

Keep away from heat.

Store locked up.

Material Used in
Packaging/Container
s

Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Personal Protective
Equipment

Respiratory
Protection

Use personal respiratory equipment as required.

Hand Protection
Eye Protection

Use personal gloves as required.

Wear eye protection.

Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).

Use personal eye protection as required.

Skin and Body
Protection

Use personal protective clothing and face
protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	Brown
Odour		slight odor
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		No data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n- Octanol/Water		No data available
Auto-Ignition		No data available
Decomposition Temperature		No data available
Viscosity		No data available
Kinematic viscosity		No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazardous to the aquatic environment (acute)	No data available
Hazardous to the aquatic environment (long-term)	No data available
Hazardous to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	Disposal should be in accordance with applicable regulations and standards by the respective local governments. When commissioning the disposal to a disposal company, notify the danger and toxicity thoroughly to the company.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact	No information available
Other Property	This information is furnished without warranty express or implied. This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2016/07/21

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier	WDR21-K
Product Code	WDR21K0001
Company Name	PENTEL CO., LTD.
Address	7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
Company Contact	QUALITY ASSURANCE DEPARTMENT I
Phone Number	03-5695-7210
Fax Number	03-5645-8204
Mail Address	hinpo@pentel.co.jp
Emergency Phone Number	03-5695-7210
Recommended Use and Restriction on Use	ink BL77-KX,BL77-KBR,LR7-KX,LR7KBRPAF

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards	Acute toxicity – inhalation (mist) Category 4 Serious eye damage/eye irritation Category 2B Specific target organ toxicity (single exposure) Category 2(respiratory apparatus,heart,kidney,central nervous system) Specific target organ toxicity (repeated exposure) Category 2(respiratory apparatus,heart,central nervous system) Other hazards than mentioned above are Not applicable or Classification not possible.
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GHS Label Elements

Symbols



Signal Word	Warning
Hazard Statements	H320 Causes eye irritation H332 Harmful if inhaled H371 May cause damage to respiratory apparatus,heart,kidney,central nervous system H373 May cause damage to respiratory apparatus,heart,central nervous system through prolonged or repeated exposure
Precautionary Statements	
Prevention	
Precautionary Statements	Do not breathe mist, vapours and spray.(P260) Avoid breathing mist, vapours and spray.(P261) Wash hand thoroughly after handling.(P264) Wash eye thoroughly after handling.(P264) Do not eat, drink or smoke when using this product.(P270)

Ingestion Rinse mouth. Do NOT induce vomiting.
Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media Small fires: Dry chemical, CO2, water spray or regular foam.

Protection of Fire Figther In fire fighting, wear respiratory protection and chemical protective clothing.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental Precautions Pay attention not to cause the influence on the environment by discharging into rivers.

Methods and Equipment for Containment and Cleaning up This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. After removal, flush contaminated area thoroughly with water.

Prevention Measures for Secondary Accidents Prevent flowing into drain, sewage, basement, and closed area.

Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling Technical Measures Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe Handling Avoid contact with eyes.

Wash hand thoroughly after handling.
Avoid swallowing.
Protect from high temperature and direct sunlight.

Prevents Handling of Incompatible Substances or Mixtures Refer to "Section 10 – STABILITY AND REACTIVITY".

Specific Hygiene Measures Wash hand thoroughly after handling.

Storage Precautionary Statements Technical Measures Have containers keep away from direct sunlight and heat.
Keep away from heat.
Store locked up.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment Respiratory Protection Use personal respiratory equipment as required.

Hand Protection Use personal gloves as required.

Eye Protection Use personal eye protection as required.

Skin and Body Protection Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical State liquid
Form liquid (viscous liquid)
Colour Lime Green

Odour	slight odor
Odour threshold	No data available
pH	No data available
Melting Point/Freezing Point	No data available
Initial Boiling Point and Boiling Ranges	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Flammability or Explosive Limits	No data available
	Lower Limit
	Upper Limit
Vapour Pressure	No data available
Vapour Density	No data available
Specific Gravity (Density)	No data available
Partition Coefficient : n-Octanol/Water	No data available
Auto-Ignition	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Kinematic viscosity	No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazardous to the aquatic environment (acute)	No data available
Hazardous to the aquatic environment (long-term)	No data available
Hazardous to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste

Disposal should be in accordance with applicable regulations and standards by the respective local governments.

Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.

Contaminated Container and Packaging

Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations

Regulatory Information by Sea
Marine Pollutant Transport in bulk according to MARPOL

Not applicable

73/78,Annex II ,and the IBC code

Not applicable

Not applicable

Regulatory Information by Air

Not applicable

Regulations in Japan

Regulatory Information by Road or Rail

Not applicable

Regulatory Information by Sea
Marine Pollutant Transport in bulk according to MARPOL

Not applicable

Not applicable

Not applicable

73/78,Annex II ,and the IBC code

Regulatory Information by Air

Not applicable

Emergency Response Guide Number

Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact

No information available

Other Property

This information is furnished without warranty express or implied.

This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes leagal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2016/07/21

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier WDR21-S3
 Product Code WDR21S3001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 03-5695-7210
 Fax Number 03-5645-8204
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 03-5695-7210
 Recommended Use ink
 and Restriction on Use
 BL77-S3X,BL77-S3BR,LR7-S3X,LR7S3BRPAF

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Health Hazards Acute toxicity – inhalation (mist) Category 4
 Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure)
 Category 2(respiratory
 apparatus,heart,kidney,central nervous system)
 Specific target organ toxicity (repeated exposure)
 Category 2(respiratory apparatus,heart,central
 nervous system)
 Other hazards than mentioned above are Not
 applicable or Classification not possible.

GHS Label Elements

Symbols



Signal Word Warning
 Hazard Statements H320 Causes eye irritation
 H332 Harmful if inhaled
 H371 May cause damage to respiratory
 apparatus,heart,kidney,central nervous system
 H373 May cause damage to respiratory
 apparatus,heart,central nervous system through
 prolonged or repeated exposure
 Precautionary
 Statements
 Prevention Do not breathe mist, vapours and spray.(P260)
 Precautionary
 Statements Avoid breathing mist, vapours and spray.(P261)
 Wash hand thoroughly after handling.(P264)
 Wash eye thoroughly after handling.(P264)
 Do not eat, drink or smoke when using this
 product.(P270)

Response Precautionary Statements	Use only outdoors or in a well-ventilated area.(P271) IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.(P304+P340) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.(P305+P351+P338) IF exposed or concerned: Call a POISON CENTER/doctor/...(P308+P311) Call a doctor if you feel unwell.(P312) Get medical advice and attention if you feel unwell.(P314) If eye irritation persists: Get medical advice and attention.(P337+P313)
Storage Precautionary Statements	Store locked up.(P405)
Disposal Precautionary Statements	Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance
or Mixture

Mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCS No./ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Glycerin	11.5%	CH ₂ OHCH (OH)C H ₂ OH	(2)- 242,(7)- 338	Existing	56-81-5
Ethylene glycol	5%	HOCH ₂ CH 2OH	(2)-230	Existing	107-21-1
Thiodiethylene glycol	9%	HOCH ₂ CH 2SCH ₂ C H ₂ OH	(2)-470	Existing	111-48-8
Triethanolamine	0.7%	N(CH ₂ CH ₂ OH) ₃	(2)-308	Existing	102-71-6

Impurities and/or
Stabilizing Additives which
Contribute to the

No information available

Section 4 – FIRST AID MEASURES

Inhalation

If breathing is difficult, move affected person to the open air. Keep him or her at rest to allow easier breathing.

Get medical advice and attention if you feel unwell.

Skin Contact

Wash with plenty of soap and water.
If skin irritation or rash occurs, get medical advice and attention.

Eye Contact

Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
Get medical advice and attention if you feel unwell.

Ingestion Rinse mouth. Do NOT induce vomiting.
Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Small fires: Dry chemical, CO₂, water spray or regular foam.

Protection of Fire Figther

In fire fighting, wear respiratory protection and chemical protective clothing.

Section 6 – ACCIDENTAL RELEASE MEASURES

Environmental
Precautions

Pay attention not to cause the influence on the environment by discharging into rivers.
This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
After removal, flush contaminated area thoroughly with water.

Methods and Equipment
for Containment and
Cleaning up
Prevention Measures for
Secondary Accidents

Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Avoid contact with eyes.

Wash hand thoroughly after handling.
Avoid swallowing.

Protect from high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures
Specific Hygiene
Measures

Refer to "Section 10 – STABILITY AND REACTIVITY".

Wash hand thoroughly after handling.

Storage Precautionary
Statements

Technical Measures

Have containers keep away from direct sunlight and heat.

Keep away from heat.

Store locked up.

Material Used in
Packaging/Container
s

Packaging materials and containers are not legislated, but use sturdy and closed-type containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Personal Protective
Equipment

Respiratory
Protection

Use personal respiratory equipment as required.

Hand Protection
Eye Protection
Skin and Body
Protection

Use personal gloves as required.

Use personal eye protection as required.

Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	Turquoise Blue
Odour		slight odor
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		No data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-Octanol/Water		No data available
Auto-Ignition		No data available
Decomposition Temperature		No data available
Viscosity		No data available
Kinematic viscosity		No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazardous to the aquatic environment (acute)	No data available
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Hazardous to the aquatic environment (long-term)	No data available
Hazardous to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	Disposal should be in accordance with applicable regulations and standards by the respective local governments. Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.
Contaminated Container and Packaging	Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
Regulations in Japan	Regulatory Information by Air	Not applicable
	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Not applicable
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Not applicable
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility.

Section 16 – OTHER INFORMATION

Information Contact	No information available
Other Property	This information is furnished without warranty express or implied. This information is believed to be accurate to the best knowledge of PENDEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.