Preparation Date 2013/04/20 Revision Date 2016/01/12 Section 1 - CHEMICALS AND COMPANY IDENTIFICATION Chemical IdentifieWDR11-A Product Code WDR11A0001 Company Name PENTEL CO., LTD. Address 7-2. KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO QUALITY ASSURANCE DEPARTMENT I Company Contact 048-928-6668 Phone Number Fax Number 048-928-9190 hinpo@pentel.co.jp Mail Address Emergency Phone 048-928-6668 Number Recommended Use ink and Restriction or Use LRN5/7, LRN5H, LRNT5, LR7/10, BLN15/23/25/75, BLN105, BL17/27/30/107-ABL60, BL110-A Section 2 - HAZARDS IDENTIFICATION **GHS** Classification Health Hazards Serious eve damage/eve irritation Category Specific target organ toxicity (single expo Category 2(respiratory apparatus, heart, kidney, central nervous syst Specific target organ toxicity (repeated ex Category 2(respiratory apparatus, heart, cent nervous system) Environmental Hazard to the aquatic environment (acute ha Hazards Categorv 2 Hazard to the aquatic environment (long-ter 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 syst H373 May cause damage to respiratory apparatus, heart, central nervous system thro prolonged or repeated exposure H411 Toxic to aquatic life with long lastin Precautionary Statements Prevention Do not get in eyes, on skin, or on clothing Precautionary Statements

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)
Storage	Store locked up.(P405)
Precautionary	
Statements	
Disposal	Dispose of contents and container in accordance
Precautionary Statements	with local, regional and national regulations (to be specified).(P501)

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS **Distinction of Substance**

or Mixture

mixture

or Mixture					
Chemical Name or	Concentration or Its	Formula	ENCS No.	/ISHL No.	CAS RN
Generic Name	Ranges	Formula	ENCS No.	ISHL No.	CAS RN
Glycerin	8.79%	CH2OHCH	(2)-	Existing	56-81-5
		(OH)C	242,(7)-		
		H2OH	338		
Ethylene glycol	7%	HOCH2CH	(2)-230	Existing	107-21-1
		2OH			
Ammonia	0.3%		(1)-391	Existing	7664-41-7
Triethanolamine	0.3%	N(CH2CH2	(2)-308	Existing	102-71-6
		OH)3			
Thiodiglycol	9.5%	HOCH2CH	(2)-470	Existing	111-48-8
		2SCH2C			
		H2OH			

Impurities and/or Stabilizing Additives which Contribute to the

Section 4 - FIRST AID MEASURES

Inhalation

Skin Contact

Eye Contact

Ingestion

No information available

Remove person to fresh air and keep comfortable for breathing. Get medical advice and attention if you feel unwell. Immediately rinse skin with water. Get medical advice and attention if you feel unwell. 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.

Rinse mouth. Do NOT induce vomiting.

Get medical advice and attention if you feel unwell.

Section 5 - FIRE FIGHTING Extinguishing Media	MEASURES	Dry chemicals, CO2, water spray or regular foam.
Section 6 – ACCIDENTAL RE Environmental Precautions Methods and Equipment	ELEASE MEASURES	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
for Containment and Cleaning up		with water.
		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.
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	Wash hand thoroughly after handling.
		Avoid swallowing.
	Imcompatible Substances or	Protect from high temperature and direct sunlight. Refer to "Section 10 - STABILITY AND REACTIVITY".
	Mixtures Specific Hygine Measures	Wash hand thoroughly after handling.
Storage Precautionary	Technical Measures	The storage facility should be provided with
Statements		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 CON Engineering Controls	ITROLS / PERSONAL	PROTECTION Good general ventilation should be sufficient to
Personal Protective	Eye Protection	control airborne levels. Wear eye protection.
Equipment		Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Section 9 FITISICAL AND C		
Appearance	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	black
Odour		slight odor
Odour threshold		No data available
рН		No data available
Melting Point/Freezing		No data available
Point		
Initial Boiling Point and		No data available
_		NO UALA AVAIIADIE
Boiling Ranges		
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive	Lower Limit	No data available
Limits		
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-		No data available
Octanol/Water		NO UALA AVAIIADIE
		NI I
Auto-Ignition		No data available
Decomposition		No data available
Temperature		
Viscosity		No data available
Kinematic viscosity		No data available
Reactivity Chemical stability Possibility of Hazardous Reaction Conditions to Avoid Imcompatible Substances or Mixtures Hazardous Decomposition Products Section 11 – TOXICOLOGICA Acute Toxicity Skin Corrosion/Irritation Serious eye damage/eye irritation Respiratory or Skin Sensitization Germ Cell Mutagenicity Carcinogenicity Reproductive Toxicity Specific target organ toxicity (single exposure)	L INFORMATION	No data available No data available
Specific target organ toxicity (repeated exposure) Aspiration Hazard		No data available No data available

Section 12 - ECOLOGICAL INFORMATION

Hazard to the aquatic		No data available
environment (acute Hazard to the aquatic environment (long-term hazard)		No data available
Hazard to the ozone laye	er	No data available
Section 13 - DISPOSAL CO Residual Waste	NSIDERATIONS	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 I	NFORMATION	
International Regulations	Regulatory Information by Sea	Not applicable
	Marine Pollutant Transport in bulk	Not applicable Not applicable
	according to MARPOL 73/78,Annex II ,and the IBC code	
	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	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 Regulatory information w examined by your own re	ith regard to this produ	ct in your country or in your region should be
Section 16 - OTHER INFOR	MATION	
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

best knowledge of PENTEL Co., Ltd. but not assumes leagal responsibility for use of or reliance upon this information.

Preparation Date 2013/04/20 Revision Date 2016/01/12 Section 1 - CHEMICALS AND COMPANY IDENTIFICATION Chemical IdentifieWDR14-B Product Code WDR14B0001 Company Name PENTEL CO., LTD. Address 7-2. KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO QUALITY ASSURANCE DEPARTMENT I Company Contact Phone Number 048-928-6668 Fax Number 048-928-9190 Mail Address hinpo@pentel.co.jp 048-928-6668 Emergency Phone Number Recommended Use ink and Restriction or Use BLN15/25/75/105-B (X) LRN5, LRN5H, LSN5H, XLRNT5-B Section 2 - HAZARDS IDENTIFICATION GHS Classification Health Hazards Acute toxicity - inhalation (gas) Category Serious eye damage/eye irritation Category Sensitization - respiratory Category 1 Reproductive toxicity Category 2 Specific target organ toxicity (single expo Category 2(respiratory apparatus, heart, kidney, central nervous syst Specific target organ toxicity (repeated ex Category 2(liver, respiratory apparatus, heart, kidney, central nervous syst Environmental Hazard to the aquatic environment (acute ha Hazards Category 2 Hazard to the aquatic environment (long-ter hazard) 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 o
		breathing difficulties if inhaled
		H361 Suspected of damaging fertility or the
		unborn child
		H371 May cause damage to respiratory
		apparatus, heart, kidney, central nervous syst
		H373 May cause damage to liver, respiratory
		apparatus, heart, kidney, central nervous syst
		through prolonged or repeated exposure
		H411 Toxic to aquatic life with long lastin

Precautionary Statements Prevention Precautionary Statements	Wear protective gloves.(P280)
	Wear respiratory protection.(P284) Do not get in eyes, on skin, or on clothing.(P262)
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) Call a doctor if you feel unwell.(P312)
	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)
Storage Precautionary	Store locked up.(P405)
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 mixture

or Mixture					
Chemical Name or	Concentration or Its	Formula	ENCS No.	/ISHL No.	CAS RN
Generic Name	Ranges	Fornula	ENCS No.	ISHL No.	CAS RN
Glycerin	7.3%	CH2OHCH	(2)-	Existing	56-81-5
		(OH)C	242,(7)-		
		H2OH	338		
Etlylene glycol	9.7%	HOCH2CH	(2)-230	Existing	107-21-1
		20H			
Diethylene glycol	7.3%	HOCH2CH	(2)-	Existing	111-46-6
		2OCH2C	415,(2)-		
		H2OH	2979		

Impurities and/or Stabilizing Additives which Contribute to the

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.
	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.

Ingestion			When the ocular stimulation lasts, Seek medical treatment and advice. Get medical advice and attention. Rinse mouth. Do NOT induce vomiting. Get medical advice and attention if you feel unwell.
Section 5 - FIR Extinguishin		IEASURES	Dry chemicals, CO2, water spray or regular foam.
Section 6 – ACC Environment Precautions	tal	LEASE MEASURES	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.
Methods and for Containn Cleaning up			After removal, flush contaminated area thoroughly with water.
	Measures for		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.
Secondary A			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 - HAN	NDLING AND S	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	Use only outdoors or in a well-ventilated area.
			Wash hand thoroughly after handling.
			Avoid swallowing. Protect from high temperature and direct sunlight.
		Prevents Handling of Imcompatible Substances or Mixtures	Refer to "Section 10 - STABILITY AND REACTIVITY".
		Specific Hygine Measures	Wash hand thoroughly after handling.
Storage Pre Statements	cautionary	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		Carry out handling of the material in the workplace
		equipped with a full ventilation system. 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 C	HEMICAL PROPERT	IFS
	Physical State	liquid
	Form	liquid (viscous liquid)
	Colour	red
Odour		slight odor
Odour threshold		No data available
pH		No data available
Melting Point/Freezing		No data available
Point Initial Boiling Point and		No data available
Boiling Ranges		NO data available
Flash Point		no data available
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive	Lower Limit	No data available
Limits		
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-		No data available
Octanol/Water		No data available
Auto–Ignition Decomposition		No data available
Temperature		
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
Imcompatible Substances		No data available
or Mixtures		
Hazardous Decomposition		No data available
Products		
Section 11 - TOXICOLOGICAL		No information evolable
Acute Toxicity Skin Corrosion/Irritation		No information available No data available
Skin Corrosion/Initation Serious eye damage/eye		No data available
irritation		
Respiratory or Skin		No data available
Sensitization		
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 IN	NFORMATION	N 1 1 1 1		
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 CON	ISIDERATIONS			
Residual Waste Contaminated Container and Packaging		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. 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 IN	FORMATION			
International Regulations	Regulatory Information by Sea Marine Pollutant Transport in bulk according to MARPOL 73/78,Annex II ,and the IBC code	Not applicable 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	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 I	NFORMATION			

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

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.

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 048-928-6668 Number Recommended Use ink and Restriction on Use 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	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
Stavara	attention.(P337+P313) Store leaked up (P405)
Storage Precautionary	Store locked up.(P405)
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 mixture

Distinction of Substance		mixture			
or Mixture					
Chemical Name or	Concentration or Its	Formula	ENCS No./ISHL No.		
Generic Name	Ranges	Formula	ENCS No.	ISHL No.	CAS RN
Ethylene glycol	12.6%	HOCH2CH	(2)-230	Existing	107-21-1
		20H			
Glycerin	8.7%	CH2OHCH	(2)-	Existing	56-81-5
		(OH)C	242,(7)-		
		H2OH	338		
Thiodiglycol	9.4%	HOCH2CH	(2)-470	Existing	111-48-8
		2SCH2C			
		H2OH			

Impurities and/or Stabilizing Additives which Contribute to the

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
Ingestion	treatment and advice. 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.
Methods and Equipment for Containment and Cleaning up	Vacuum or sweep up material and place in a disposal container.

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.
Section 7 – HANDLING AND Handling	Technical Measures Precautions for Safe Handling	Provide ventilation system and use necessary personal protective equipment as described in "Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION". Wash hand thoroughly after handling. Avoid swallowing. Avoid swallowing. Protect from high temperature and direct sunlight. Refer to "Section 10 - STABILITY AND REACTIVITY".
Storage Precautionary Statements		Refer to "Section 10 - STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Keep away from heat.
Section 8 - EXPOSURE CON Engineering Controls	TROLS / PERSONAL	PROTECTION Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection Hand Protection Eye Protection Skin and Body Protection	Use personal gloves as required. Use personal eye protection as required. Use personal eye protection as required. Use personal protective clothing and face protection as required.
Section 9 - PHYSICAL AND (Appearance	CHEMICAL PROPERTI Physical State Form Colour	IES liquid liquid (viscous liquid) blue
Odour Odour threshold pH Melting Point/Freezing Point	Colour	odorless No data available No data available No data available
Initial Boiling Point and Boiling Ranges Flash Point Evaporation Rate Flammability (solid, gas)		No data available no data available No data available No data available
Flammability or Explosive Limits	Lower Limit Upper Limit	No data available No data available
Vapour Pressure Vapour Density Specific Gravity (Density)		No data available No data available No data available

Partition Coefficient : n-		No data available
Octanol/Water		
Auto-Ignition		No data available
Decomposition		No data available
Temperature		
Viscosity		No data available
Kinematic viscosity		No data available
Section 10 - STABILITY AND	REACTIVITY	
Reactivity	NEADIWITT	No data available
Chemical stability		No data available
Possibility of Hazardous		No data available
Reaction		
Conditions to Avoid		No data available
		No data available
Imcompatible Substances or Mixtures		
Hazardous Decomposition		No data available
Products		
Section 11 - TOXICOLOGICA	L INFORMATION	No. 1. Comparison and the late
Acute Toxicity		No information available
Skin Corrosion/Irritation		No data available
Serious eye damage/eye		No data available
irritation		Na data available
Respiratory or Skin Sensitization		No data available
		No data available
Germ Cell Mutagenicity		
Carcinogenicity		No data available
Reproductive Toxicity		No data available
Specific target organ		No data available
toxicity (single exposure)		No data ang lakin
Specific target organ		No data available
toxicity (repeated exposure)		
Aspiration Hazard		No data available
Aspiration Hazaru		
Section 12 - ECOLOGICAL IN	FORMATION	
Hazard to the aquatic		No data available
environment (acute		
Hazard to the aquatic		No data available
environment (long-term		
hazard)		
Hazard to the ozone layer		No data available
Section 13 - DISPOSAL CON	SIDERATIONS	
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		Recycle containers after cleansing, or carry out
and Packaging		the disposal under the related laws and regulations
		and the standards of the local governments.
Section 14 - TRANSPORT INF		
		Not applicable
	Information by Sea	
	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 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.

Preparation Date 2014/08/12 Revision Date 2016/01/12 Section 1 - CHEMICALS AND COMPANY IDENTIFICATION Chemical IdentifieWDR20-D Product Code WDR20D0001 Company Name PENTEL CO., LTD. 7-2. KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO Address Company Contact QUALITY ASSURANCE DEPARTMENT I 048-928-6668 Phone Number Fax Number 048-928-9190 hinpo@pentel.co.jp Mail Address Emergency Phone 048-928-6668 Number Recommended Use ink and Restriction or Use BLN15/25/75/105, BLN77, BL17/27/57/77, BL60, BL80, BL107, LR7, LRN5-D Section 2 - HAZARDS IDENTIFICATION **GHS** Classification Health Hazards Serious eve damage/eve irritation Category Specific target organ toxicity (single expo Category 1 (respiratory apparatus, heart, kidney, central nervous syst Specific target organ toxicity (repeated ex Category 1(respiratory apparatus, heart, cent 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 syst H372 Causes damage to respiratory apparatus, heart, central nervous system thro prolonged or repeated exposure Precautionary Statements Prevention Do not breathe mist, vapours and spray. (P26 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
Stavara	attention.(P337+P313) Store leaked up (P405)
Storage Precautionary	Store locked up.(P405)
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		mixture			
or Mixture					
Chemical Name or	Concentration or Its	Formula	ENCS No./ISHL No.		CAS RN
Generic Name	Ranges	Fornula	ENCS No.	ISHL No.	UAS KN
Ethylene glycol	12.6%	HOCH2CH	(2)-230	Existing	107-21-1
		20H			
Glycerin	8.6%	CH2OHCH	(2)-	Existing	56-81-5
		(OH)C	242,(7)-		
		H2OH	338		
Thiodiglycol	9.4%	HOCH2CH	(2)-470	Existing	111-48-8
		2SCH2C			
		H2OH			

Impurities and/or Stabilizing Additives which Contribute to the

Section 4 – FIRST AID MEASURES	
Inhalation	Call a doctor if you feel unwell.
Skin Contact	Wash with soap and water.
Eye Contact	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	Dur, chemicale CO2 water environ en regular form
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.
Methods and Equipment	Vacuum or sweep up material and place in a
for Containment and Cleaning up	disposal container.

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.
Section 7 – HANDLING AND Handling	Technical Measures Precautions for Safe Handling	Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION". Wash hand thoroughly after handling. Avoid swallowing. Avoid contact with eyes. Protect from high temperature and direct sunlight. Refer to "Section 10 – STABILITY AND REACTIVITY".
Storage Precautionary Statements		Refer to "Section 10 - STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Keep away from heat.
Section 8 - EXPOSURE CON Engineering Controls	TROLS / PERSONAL	PROTECTION Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection 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		
Appearance	Physical State Form Colour	liquid liquid (viscous liquid) green
Odour Odour		odorless
Odour threshold pH		No data available No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		no data available No data available
Evaporation Rate Flammability (solid, gas)		No data available 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-		No data available
Octanol/Water		
Auto-Ignition		No data available
Decomposition		No data available
Temperature		
Viscosity		No data available
Kinematic viscosity		No data available
Section 10 - STABILITY AND	REACTIVITY	
Reactivity	NEADIWITT	No data available
Chemical stability		No data available
Possibility of Hazardous		No data available
Reaction		
Conditions to Avoid		No data available
		No data available
Imcompatible Substances or Mixtures		
Hazardous Decomposition		No data available
Products		
Section 11 - TOXICOLOGICA	L INFORMATION	No. 1. Comparison and the late
Acute Toxicity		No information available
Skin Corrosion/Irritation		No data available
Serious eye damage/eye		No data available
irritation		Na data available
Respiratory or Skin Sensitization		No data available
		No data available
Germ Cell Mutagenicity		
Carcinogenicity		No data available
Reproductive Toxicity		No data available
Specific target organ		No data available
toxicity (single exposure)		No data ang lakin
Specific target organ		No data available
toxicity (repeated exposure)		
Aspiration Hazard		No data available
Aspiration Hazaru		
Section 12 - ECOLOGICAL IN	FORMATION	
Hazard to the aquatic		No data available
environment (acute		
Hazard to the aquatic		No data available
environment (long-term		
hazard)		
Hazard to the ozone layer		No data available
Section 13 - DISPOSAL CON	SIDERATIONS	
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		Recycle containers after cleansing, or carry out
and Packaging		the disposal under the related laws and regulations
		and the standards of the local governments.
Section 14 - TRANSPORT INF		
		Not applicable
	Information by Sea	
	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 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.

Preparation Date 2014/08/12 Revision Date 2016/01/12 Section 1 - CHEMICALS AND COMPANY IDENTIFICATION Chemical IdentifieWDR20-V Product Code WDR20V0001 Company Name PENTEL CO., LTD. Address 7-2. KOAMICHO, NIHONBASHI, CHUO-KU, TOKYO QUALITY ASSURANCE DEPARTMENT I Company Contact 048-928-6668 Phone Number Fax Number 048-928-9190 hinpo@pentel.co.jp Mail Address Emergency Phone 048-928-6668 Number Recommended Use ink and Restriction or Use BLN15, BLN25, BLN75, BLN105, BL17, BL27, BL57, BL60, BL77, BL80, BL107, LRN5, LR7, LR10-V Section 2 - HAZARDS IDENTIFICATION **GHS** Classification Health Hazards Serious eve damage/eve irritation Category Specific target organ toxicity (single expo Category 1 (respiratory apparatus, heart, kidney, central nervous syst Specific target organ toxicity (repeated ex Category 1(respiratory apparatus, heart, cent 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 syst H372 Causes damage to respiratory apparatus, heart, central nervous system thro prolonged or repeated exposure Precautionary Statements Prevention Do not breathe mist, vapours and spray. (P26 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)
Storage	Store locked up.(P405)
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		mixture			
or Mixture					
Chemical Name or	Concentration or Its	Formula	ENCS No.	/ISHL No.	CAS RN
Generic Name	Ranges	Formula -	ENCS No.	ISHL No.	UAS RN
Ethylene glycol	12.6%	HOCH2CH	(2)-230	Existing	107-21-1
		20H			
Glycerin	8.6%	CH2OHCH	(2)-	Existing	56-81-5
		(OH)C	242,(7)-		
		H2OH	338		
Thiodiglycol	9.4%	HOCH2CH	(2)-470	Existing	111-48-8
		2SCH2C			
		H2OH			

Impurities and/or Stabilizing Additives which Contribute to the

Section 4 – FIRST AID MEASURES	
Inhalation	Call a doctor if you feel unwell.
Skin Contact	Wash with soap and water.
Eye Contact	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.
Methods and Equipment for Containment and Cleaning up	Vacuum or sweep up material and place in a disposal container.

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.
Section 7 – HANDLING AND Handling	Technical Measures Precautions for Safe Handling	Provide ventilation system and use necessary personal protective equipment as described in "Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION". Wash hand thoroughly after handling. Avoid swallowing. Avoid swallowing. Protect from high temperature and direct sunlight. Refer to "Section 10 - STABILITY AND REACTIVITY".
Storage Precautionary Statements		Refer to "Section 10 - STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Keep away from heat.
		PROTECTION Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection Hand Protection Eye Protection Skin and Body Protection	Use personal gloves as required. Use personal eye protection as required. Use personal eye protection as required. Use personal protective clothing and face protection as required.
Section 9 - PHYSICAL AND (Appearance Odour Odour threshold pH Melting Point/Freezing Point	CHEMICAL PROPERT Physical State Form Colour	IES liquid liquid (viscous liquid) purple odorless No data available No data available No data available
Initial Boiling Point and Boiling Ranges Flash Point Evaporation Rate Flammability (solid, gas) Flammability or Explosive Limits	Lower Limit	No data available no data available No data available No data available No data available
Vapour Pressure Vapour Density Specific Gravity (Density)	Upper Limit	No data available No data available No data available No data available

	Partition Coefficient : n-		No data available
	Octanol/Water		
	Auto-Ignition		No data available
	Decomposition		No data available
	Temperature		
	Viscosity		No data available
	Kinematic viscosity		No data available
	,		
Se	ection 10 - STABILITY AND	REACTIVITY	
	Reactivity		No data available
	Chemical stability		No data available
	Possibility of Hazardous		No data available
	Reaction		
	Conditions to Avoid		No data available
	Imcompatible Substances		No data available
	or Mixtures		
	Hazardous Decomposition		No data available
	Products		
Se	ection 11 – TOXICOLOGICA	AL INFORMATION	
	Acute Toxicity		No information available
	Skin Corrosion/Irritation		No data available
	Serious eye damage/eye		No data available
	irritation		
	Respiratory or Skin		No data available
	Sensitization		
	Germ Cell Mutagenicity		No data available
	Carcinogenicity		No data available
	Reproductive Toxicity		No data available
	Specific target organ		No data available
	toxicity (single exposure)		
	Specific target organ		No data available
	toxicity (repeated		
	exposure)		
	Aspiration Hazard		No data available
Se	ection 12 - ECOLOGICAL II	VFORMATION	
	Hazard to the aquatic		No data available
	environment (acute		
	Hazard to the aquatic		No data available
	environment (long-term		
	hazard)		
	Hazard to the ozone layer		No data available
Se	ection 13 – DISPOSAL CON	ISIDERATIONS	
	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		Recycle containers after cleansing, or carry out
	and Packaging		the disposal under the related laws and regulations
			and the standards of the local governments.
-			
Se	ection 14 – TRANSPORT IN		
	International Regulations		Not applicable
		Information by Sea	
		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

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