

## Safety Data Sheet (SDS)

Preparation Date 2012/10/25

Revision Date 2016/02/18

## Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier MW-A1  
 Product Code MWA1000002  
 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

EMWL5W,6W, EMWLM,S, MWL5S,6S, MWL5M,  
 MWL6、MW5S、MW50M,60M, MWR1, MWINK、-A

## Section 2 – HAZARDS IDENTIFICATION

## GHS Classification

Physicochemical Hazards Flammable liquids Category 2  
 Health Hazards Serious eye damage/eye irritation Category 2A  
 Germ cell mutagenicity Category 1B  
 Carcinogenicity Category 2  
 Reproductive toxicity Category 1A  
 Specific target organ toxicity (single exposure) Category 1(kidney,systemic toxicity,central nervous system)  
 Specific target organ toxicity (single exposure) Category 3(narcotic effect,respiratory tract irritation)  
 Specific target organ toxicity (repeated exposure) Category 1(liver)  
 Specific target organ toxicity (repeated exposure) Category 2(blood vessel,central nervous system,lung,spleen)  
 Other hazards than mentioned above are Not applicable or No data available.

## GHS Label Elements

## Symbols



Signal Word Danger  
 Hazard Statements H225 Highly flammable liquid and vapour  
 H319 Causes serious eye irritation  
 H335 May cause respiratory irritation  
 H336 May cause drowsiness and dizziness  
 H340 May cause genetic defects  
 H351 Suspected of causing cancer  
 H360 May damage fertility or the unborn child

	H370 Causes damage to kidney,systemic toxicity,central nervous system H372 Causes damage to liver through prolonged or repeated exposure H373 May cause damage to blood vessel,central nervous system,lung,spleen through prolonged or repeated exposure
Precautionary Statements Prevention Precautionary Statements	Avoid breathing gas.(P261)  Avoid breathing dust and fume.(P261) Wear protective gloves, eye protection and face protection.(P280) Keep container tightly closed.(P233) Do not breathe mist, vapours and spray.(P260) Wash hand 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)
Response Precautionary Statements	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) Get medical advice and attention if you feel unwell.(P314) If skin irritation or rash occurs, get medical advice and attention.(P333+P313) If eye irritation persists: Get medical advice and attention.(P337+P313)
Storage Precautionary Statements	Store in a well-ventilated place keeping container tightly closed.(P403+P233)  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.	
Carbon black	3.43%		(5)-3328,(5)-5222	Existing	1333-86-4
Ethanol	44.79%	CH <sub>3</sub> CH <sub>2</sub> OH	(2)-202	Existing	64-17-5
Isopropanol	37.96%	CH <sub>3</sub> CH(OH)CH <sub>3</sub>	(2)-207	2-(8)-319	67-63-0
Acetone	0.58%	CH <sub>3</sub> COCH <sub>3</sub>	(2)-542	Existing	67-64-1

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

Take off or dispose of all polluted clothes.  
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.

Call a doctor if you feel unwell.  
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  
Protection of Fire Figther

Dry chemicals, CO2, water spray or regular foam.  
In fire fighting, wear respiratory protection and chemical protective clothing.

**Section 6 – ACCIDENTAL RELEASE MEASURES**

Personal Precautions,  
Protective Equipment and  
Emergency Procedures

Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.

Environmental

Do not release into the environment.  
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.  
Stop leak if you can do it without risk.

Methods and Equipment  
for Containment and  
Cleaning up

Small spills; cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.  
Allow material to solidify, and scrape up.  
After removal, flush contaminated area thoroughly with water.  
Absorb or cover with dry earth, sand or other non-combustible material and transfer to 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

Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.  
Removes all ignition sources promptly. (Prohibition of smoking, sparks, and flames in the surrounding area).  
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	Do not eat, drink or smoke when using this product. Wash hand thoroughly after handling. Do not breathe mist, vapours and spray. Use exhaust ventilation. Avoid contact with eyes. Handle at a well-ventilated place. 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	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 in a tightly closed container. Store locked up.
	Material Used in Packaging/Container	Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations".

**Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

Engineering Controls		Good general ventilation should be sufficient to control airborne levels.
Personal Protective Equipment	Respiratory Protection	Wear an adequate protective apparatus for respiratory organs.
	Hand Protection	Wear protective gloves.
	Eye Protection	Wear eye protection. Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).
	Skin and Body Protection	Wear face protection.  Use personal protective clothing and face protection as required.

**Section 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Physical State	liquid
	Form	liquid

	Colour	black
Odour		alcoholic
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		14.0°C (Tag Closed Cup)
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
Flammability or Explosive Limits		
<b>Section 10 – STABILITY AND REACTIVITY</b>		
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
<b>Section 11 – TOXICOLOGICAL INFORMATION</b>		
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
<b>Section 12 – ECOLOGICAL INFORMATION</b>		
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	Conform to the provisions of IMO.
	UN No.	1263
	Proper Shipping Class	PAINT 3
	Packing Group	II
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78,Annex II ,and the IBC code	Not applicable
	Regulatory Information by Air	Conform to the provisions of ICAO/IATA.
	UN No.	1263
	Proper Shipping Class	PAINT 3
	Packing Group	II
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Conform to the provisions of the Ship Safety Law.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78,Annex II ,and the IBC code	Not applicable
	Regulatory Information by Air	Conform to the provisions of the Ship Safety Law.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II

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 2012/10/25

Revision Date 2016/02/18

## Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name MW-B4  
 Product Code MWB4000002  
 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 and Restriction on Use ink

EMWL5W,6W, EMWLM,S, MWL5S,6S, MWL5M,  
 MWL6, MW5S, MWXN5M,6M, XMWR2,  
 MW50M,60M, MWR1, MWINK, LMWINK, MW5F,  
 MW5W, MW6-B

## Section 2 – HAZARDS IDENTIFICATION

## GHS Classification

Physicochemical Hazards Flammable liquids Category 2  
 Health Hazards Serious eye damage/eye irritation Category 2A  
 Germ cell mutagenicity Category 1B  
 Reproductive toxicity Category 1A  
 Specific target organ toxicity(single exposure)  
 Category 1(kidney,systemic toxicity,central nervous system)  
 Specific target organ toxicity(single exposure)  
 Category 3(narcotic effect,respiratory tract irritation)  
 Specific target organ toxicity(repeated exposure)  
 Category 1(liver)  
 Specific target organ toxicity(repeated exposure)  
 Category 2(central nervous system,spleen,blood vessel)  
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements  
Symbols

Signal Word Danger  
 Hazard Statements H225 Highly flammable liquid and vapour  
 H319 Causes serious eye irritation  
 H335 May cause respiratory irritation  
 H336 May cause drowsiness and dizziness  
 H340 May cause genetic defects  
 H360 May damage fertility or the unborn child  
 H370 Causes damage to kidney,systemic toxicity,central nervous system.



H372 Causes damage to liver through prolonged or repeated exposure.  
 H373 May cause damage to blood vessel, central nervous system, spleen through prolonged or repeated exposure.

Precautional Statements  
 Prevention  
 Precautionary Statements

Keep container tightly closed.(P233)

Keep cool.(P235)  
 Do not breathe mist, vapours and spray.(P260)  
 Wash hands 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)  
 Wear eye protection and face protection.(P280)  
 Use personal protective equipment as required.(P281)

Response  
 Precautionary Statements

IF INHALED: If breathing is difficult, remove victim 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)  
 Get medical advice and attention if you feel unwell.(P314)  
 If skin irritation or rash occurs: Get medical advice and attention.(P333+P313)  
 If eye irritation persists: Get medical advice and attention.(P337+P313)

Storage  
 Precautionary Statements

Store in a well-ventilated place. Keep container tightly closed.(P403+P233)

Disposal  
 Precautionary Statements

Store locked up.(P405)  
 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.	
Ethanol	42.75%	CH <sub>3</sub> CH <sub>2</sub> OH	(2)-202	Existing	64-17-5
Isopropanol	40.99%	CH <sub>3</sub> CH(OH)CH <sub>3</sub>	(2)-207	2-(8)-319	67-63-0
Acetone	0.55%	CH <sub>3</sub> COCH <sub>3</sub>	(2)-542	Existing	67-64-1

Impurities and/or Stabilizing Additives which Cor 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 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 unwell.

## Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

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

Protection of Fire Figther

In fire-extinguishing activity, wear an appropriate air breathing apparatus and full protective clothing for chemicals

## Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions,  
Protective Equipment and  
Emergency Procedures

Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.

Environmental

Do not release into the environment.  
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.

Decontamination/Absorption/  
Sweeping/Vacuming/  
Neutralization

Absorb or cover with dry soil, sand, or incombustible materials. Then collect them into a container.  
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.  
Remove from water surface by skimming, or absorbing with an adequate absorbent.  
If not dangerous, stop the leak.

Methods and Equipment  
for Containment and  
Cleaning up

Small amount: Prevent the material from wetting by rain. Cover with dry soil, dry sand, or non-combustibles and store under a plastic sheet cover to avoid scattering and wetting.  
Solidify substances and scrape off.  
Cleansing the contaminated area thoroughly with water after removal.

Prevention Measures for  
Secondary Accidents

Removes all ignition sources promptly. (Prohibition of smoking, sparks, and flames in the surrounding area)  
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	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Avoid swallowing Avoid the contact with the skin. Do not breathe gas. Do not breathe mist, vapours and spray. Carry out ventilation of the exhaust. Avoid the contact with eyes. Handle at a well-ventilated place. 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 in a well-ventilated and cool place keeping container tightly closed. Store locked up.
	Material Used in Packaging/Container	Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations."

**Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

Engineering Controls		A general proper ventilation is enough to control concentration in air.
Personal Protective Equipment	Respiratory Protection	Wear an adequate protective apparatus for respiratory organs.
	Hand Protection	Use necessary personal protective gloves.
	Eye Protection	Use an adequate personal eye protector. Goggles (ordinary glass type, ordinary glass type with side shields, and goggle type)
Specific Hygiene Measures	Skin and Body Protection	Wear a protective equipment for the face.  Use the personal protective clothing and full face mask whenever necessary.
		Wash hands thoroughly after handling.

**Section 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Physical State	liquid
	Colour	red
	Odour	alcoholic

	pH	No data available
Initial Boiling Point and Boiling Ranges		No information available
Flash Point		14.0°C (Tag Closed Cup)
Auto-Ignition		No information available
<b>Section 10 – STABILITY AND REACTIVITY</b>		
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
<b>Section 11 – TOXICOLOGICAL INFORMATION</b>		
Acute Toxicity		No information available
<b>Section 12 – ECOLOGICAL INFORMATION</b>		
	Environmental Hazards	No information available
Ecotoxicity		No information available
<b>Section 13 – DISPOSAL CONSIDERATIONS</b>		
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.
<b>Section 14 – TRANSPORT INFORMATION</b>		
International Regulations	Regulatory Information by Sea	Conform to the provisions of IMO.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Conform to the provisions of ICAO/IATA.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Conform to the provisions of the Ship Safety Law.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3

Packing Group	II
Marine Pollutant	Not applicable
Regulatory Information by Air	Conform to the provisions of the Ship Safety Law.
UN No.	1263
Proper Shipping Name.	PAINT
Class	3
Packing Group	II

**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

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## Safety Data Sheet (SDS)

Preparation Date 2012/10/25

Revision Date 2016/02/18

## Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name MW-C3  
 Product Code MWC3000002  
 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 and Restriction on Use ink

EMWL5W,6W, EMWLM,S, MWL5S,6S, MWL5M,  
 MWL6, MW5S, MWXN5M,6M, XMWR2,  
 MW50M,60M, MWR1, MWINK, LMWINK, MW5F,  
 MW5W, MW6-C

## Section 2 – HAZARDS IDENTIFICATION

## GHS Classification

Physicochemical Hazards Flammable liquids Category 2  
 Health Hazards Serious eye damage/eye irritation Category 2A  
 Germ cell mutagenicity Category 1B  
 Reproductive toxicity Category 1A  
 Specific target organ toxicity(single exposure) Category 1(kidney,systemic toxicity,central nervous system)  
 Specific target organ toxicity(single exposure) Category 3(narcotic effect,respiratory tract irritation)  
 Specific target organ toxicity(repeated exposure) Category 1(liver)  
 Specific target organ toxicity(repeated exposure) Category 2(central nervous system,spleen,blood vessel)  
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements  
Symbols

Signal Word Danger  
 Hazard Statements H225 Highly flammable liquid and vapour  
 H319 Causes serious eye irritation  
 H335 May cause respiratory irritation  
 H336 May cause drowsiness and dizziness  
 H340 May cause genetic defects  
 H360 May damage fertility or the unborn child  
 H370 Causes damage to kidney,systemic toxicity,central nervous system.

H372 Causes damage to liver through prolonged or repeated exposure.  
 H373 May cause damage to blood vessel, central nervous system, spleen through prolonged or repeated exposure.

Precautional Statements  
 Prevention  
 Precautionary Statements

Keep container tightly closed.(P233)

Keep cool.(P235)  
 Do not breathe mist, vapours and spray.(P260)  
 Wash hands 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)  
 Wear eye protection and face protection.(P280)  
 Use personal protective equipment as required.(P281)

Response  
 Precautionary Statements

IF INHALED: If breathing is difficult, remove victim 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)  
 Get medical advice and attention if you feel unwell.(P314)  
 If skin irritation or rash occurs: Get medical advice and attention.(P333+P313)  
 If eye irritation persists: Get medical advice and attention.(P337+P313)

Storage  
 Precautionary Statements

Store in a well-ventilated place. Keep container tightly closed.(P403+P233)

Disposal  
 Precautionary Statements

Store locked up.(P405)  
 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.	
Ethanol	42.75%	CH <sub>3</sub> CH <sub>2</sub> OH	(2)-202	Existing	64-17-5
Isopropanol	39.2%	CH <sub>3</sub> CH(OH)CH <sub>3</sub>	(2)-207	2-(8)-319	67-63-0
Acetone	0.55%	CH <sub>3</sub> COCH <sub>3</sub>	(2)-542	Existing	67-64-1

Impurities and/or Stabilizing Additives which Cor 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 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 unwell.

## Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

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

Protection of Fire Figther

In fire-extinguishing activity, wear an appropriate air breathing apparatus and full protective clothing for chemicals

## Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions,  
Protective Equipment and  
Emergency Procedures

Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.

Environmental

Do not release into the environment.  
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.

Decontamination/Absorption/  
Sweeping/Vacuming/  
Neutralization

Absorb or cover with dry soil, sand, or incombustible materials. Then collect them into a container.

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.

Remove from water surface by skimming, or absorbing with an adequate absorbent.

If not dangerous, stop the leak.

Methods and Equipment  
for Containment and  
Cleaning up

Small amount: Prevent the material from wetting by rain. Cover with dry soil, dry sand, or non-combustibles and store under a plastic sheet cover to avoid scattering and wetting.

Solidify substances and scrape off.

Cleansing the contaminated area thoroughly with water after removal.

Prevention Measures for  
Secondary Accidents

Removes all ignition sources promptly. (Prohibition of smoking, sparks, and flames in the surrounding area)

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	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Avoid swallowing Avoid the contact with the skin. Do not breathe gas. Do not breathe mist, vapours and spray. Carry out ventilation of the exhaust. Avoid the contact with eyes. Handle at a well-ventilated place. 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 Precautionary Statements	Storage Conditions	Have containers keep away from direct sunlight and heat. Keep away from heat. Store in a well-ventilated and cool place keeping container tightly closed. Store locked up.		
	Material Used in Packaging/Container	Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations."		

## Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		A general proper ventilation is enough to control concentration in air.
Personal Protective Equipment	Respiratory Protection	Wear an adequate protective apparatus for respiratory organs.
	Hand Protection	Use necessary personal protective gloves.
	Eye Protection	Use an adequate personal eye protector. Goggles (ordinary glass type, ordinary glass type with side shields, and goggle type)
Specific Hygiene Measures	Skin and Body Protection	Wear a protective equipment for the face.  Use the personal protective clothing and full face mask whenever necessary.
		Wash hands thoroughly after handling.

## Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Colour	blue
	Odour	alcoholic

Initial Boiling Point and Boiling Ranges	pH	No data available
Flash Point		No information available
Auto-Ignition		14.0°C (Tag Closed Cup)
		No information available
<b>Section 10 – STABILITY AND REACTIVITY</b>		
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
<b>Section 11 – TOXICOLOGICAL INFORMATION</b>		
Acute Toxicity		No information available
<b>Section 12 – ECOLOGICAL INFORMATION</b>		
	Environmental Hazards	No information available
Ecotoxicity		No information available
<b>Section 13 – DISPOSAL CONSIDERATIONS</b>		
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.
<b>Section 14 – TRANSPORT INFORMATION</b>		
International Regulations	Regulatory Information by Sea	Conform to the provisions of IMO.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
	Marine Pollutant	Not applicable
	Regulatory Information by Air	Conform to the provisions of ICAO/IATA.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Conform to the provisions of the Ship Safety Law.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3

Packing Group	II
Marine Pollutant	Not applicable
Regulatory Information by Air	Conform to the provisions of the Ship Safety Law.
UN No.	1263
Proper Shipping Name.	PAINT
Class	3
Packing Group	II

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 2012/10/25

Revision Date 2016/02/18

## Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier MW-D4  
 Product Code MWD4000002  
 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

EMWLM-D,EMWLS-D,MWL5M-D,MWL6-D,  
 MW5S-D,MWL5S-D,MWL6S-D,MW50M-D,  
 MW60M-D,MWR1-DM,MWINK-D

## Section 2 – HAZARDS IDENTIFICATION

## GHS Classification

Physicochemical Hazards Flammable liquids Category 2  
 Health Hazards Serious eye damage/eye irritation Category 2A  
 Germ cell mutagenicity Category 1B  
 Reproductive toxicity Category 1A  
 Specific target organ toxicity (single exposure) Category 1(kidney,systemic toxicity,central nervous system)  
 Specific target organ toxicity (single exposure) Category 3(narcotic effect,respiratory tract irritation)  
 Specific target organ toxicity (repeated exposure) Category 1(liver)  
 Specific target organ toxicity (repeated exposure) Category 2(blood vessel,central nervous system,spleen)  
 Other hazards than mentioned above are Not applicable or No data available.

## GHS Label Elements

## Symbols



Signal Word Danger  
 Hazard Statements H225 Highly flammable liquid and vapour  
 H319 Causes serious eye irritation  
 H335 May cause respiratory irritation  
 H336 May cause drowsiness and dizziness  
 H340 May cause genetic defects  
 H360 May damage fertility or the unborn child  
 H370 Causes damage to kidney,systemic toxicity,central nervous system

	H372 Causes damage to liver through prolonged or repeated exposure H373 May cause damage to blood vessel, central nervous system, spleen through prolonged or repeated exposure
Precautionary Statements	
Prevention	Avoid breathing gas.(P261)
Precautionary Statements	
	Avoid breathing dust and fume.(P261) Wear protective gloves, eye protection and face protection.(P280) Keep container tightly closed.(P233) Do not breathe mist, vapours and spray.(P260) Wash hand 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)
Response	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) Get medical advice and attention if you feel unwell.(P314) If skin irritation or rash occurs, get medical advice and attention.(P333+P313) If eye irritation persists: Get medical advice and attention.(P337+P313)
Precautionary Statements	
Storage	Store in a well-ventilated place keeping container tightly closed.(P403+P233)
Precautionary Statements	
Disposal	Store locked up.(P405) Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)
Precautionary Statements	

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.	
C.I. Pigment Green 7	3%		(5)-3315	Existing	1328-53-6
Ethanol	45.32%	CH <sub>3</sub> CH <sub>2</sub> OH	(2)-202	Existing	64-17-5
Isopropanol	40.5%	CH <sub>3</sub> CH(OH)CH <sub>3</sub>	(2)-207	2-(8)-319	67-63-0
Acetone	0.58%	CH <sub>3</sub> COCH <sub>3</sub>	(2)-542	Existing	67-64-1

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

Take off or dispose of all polluted clothes.  
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.  
Specific treatment.  
Call a doctor if you feel unwell.  
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, CO<sub>2</sub>, water spray or regular foam.

##### Protection of Fire Figther

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

#### Section 6 – ACCIDENTAL RELEASE MEASURES

##### Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.

##### Environmental

Do not release into the environment.  
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.  
Stop leak if you can do it without risk.

##### Methods and Equipment for Containment and Cleaning up

Small spills; cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.  
Allow material to solidify, and scrape up.  
After removal, flush contaminated area thoroughly with water.  
Absorb or cover with dry earth, sand or other non-combustible material and transfer to 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.  
Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.

Prevention Measures for  
Secondary Accidents

Removes all ignition sources promptly. (Prohibition of smoking, sparks, and flames in the surrounding area).  
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

Do not eat, drink or smoke when using this product.  
Wash hand thoroughly after handling.  
Do not breathe mist, vapours and spray.  
Use exhaust ventilation.  
Avoid contact with eyes.  
Handle at a well-ventilated place.  
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

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 in a well-ventilated and cool place keeping container tightly closed.  
Store locked up.

Material Used in  
Packaging/Container

Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations".

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Personal Protective  
Equipment

Respiratory  
Protection

Wear an adequate protective apparatus for respiratory organs.

Hand Protection

Wear protective gloves.

Eye Protection

Wear eye protection.

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

Skin and Body  
Protection

Wear face protection.

Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State

liquid

Form

liquid

Colour

green

Odour	alcoholic
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	14.0°C (Tag Closed Cup)
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
Flammability or Explosive Limits	No data available
<b>Section 10 – STABILITY AND REACTIVITY</b>	
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
<b>Section 11 – TOXICOLOGICAL INFORMATION</b>	
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
<b>Section 12 – ECOLOGICAL INFORMATION</b>	
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

Conform to the provisions of IMO.

UN No. 1263

Proper Shipping Class PAINT

3

Packing Group II

Marine Pollutant Not applicable

Transport in bulk Not applicable

according to

MARPOL

73/78,Annex II ,and

the IBC code

Regulatory

Conform to the provisions of ICAO/IATA.

Information by Air

UN No. 1263

Proper Shipping Class PAINT

3

Packing Group II

Regulations in Japan

Regulatory Information by Road or Rail Not applicable

or Rail

Regulatory

Conform to the provisions of the Ship Safety Law.

Information by Sea

UN No. 1263

Proper Shipping Name. PAINT

3

Packing Group II

Marine Pollutant Not applicable

Transport in bulk Not applicable

according to

MARPOL

73/78,Annex II ,and

the IBC code

Regulatory

Conform to the provisions of the Ship Safety Law.

Information by Air

UN No. 1263

Proper Shipping Name. PAINT

3

Packing Group II

Emergency Response

Not applicable

Guide Number

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.

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