

Safety Data Sheet

Version OSHA-1.0
Date of issue : 2018-11-16
Revision Date :

1. Identification of the mixture and of the company

1.1- Product identifier

Product name : WKT7 mild Cyan Ink

1.2 - Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture : Ink for writing implement
- Recommended restrictions on use : No information available
- Uses Advised Against : No information available

1.3 - Details of the supplier of the SDS

• Manufacture : ZEBRA CO., LTD.
2-9 Higashi-gokencho Shinjuku-ku Tokyo JAPAN
TEL : +81-3-3268-1193
FAX : +81-3-3268-1197

1.4 - Emergency telephone number

• Manufacture : +81-3-3268-1193
This phone number is available only during office hours: 9 a.m. to half past 5 p.m.
(Japan time)

2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of § 1910.1200

2.1 Classification of the substance or mixture

Physical hazards

Flammable liquids	Not classified
Pyrophoric liquids	Not classified
Self-heating mixtures	Not classified
Corrosive to metals	Not classified

Health hazards

Acute toxicity-Oral	Classification not possible
Acute toxicity-Dermal	Classification not possible
Acute toxicity-Inhalation: vapour	Classification not possible

<u>Unknown Acute Oral Toxicity:</u>	50% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Dermal Toxicity:</u>	51% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Inhalation: vapour Toxicity:</u>	69% of the mixture consists of ingredient(s) of unknown acute toxicity.

Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity (Single exposure)	Classification not possible
Specific target organ toxicity (Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

Hazard(s) not otherwise classified (HNOC)

None known.

2.2 Label elements**Pictograms or Symbol**

Exclamation mark

**Signal Word**

Warning

Hazard statement

May cause an allergic skin reaction

Causes serious eye irritation

Precautionary Statements**Prevention**

Avoid breathing dust/fume/gas/mist/vapours/spray

Wash hands thoroughly after handling

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves/protective clothing/eye protection/face protection

Response

IF ON SKIN: Wash with soap and water

IF IN EYES: Rinse continuously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing

If skin irritation or a rash occurs: Get medical advice/attention

If eye irritation persists: Get medical advice/attention

Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep cool and container tightly closed.

Disposal

Dispose of contents/container in accordance with local government regulation.

3. Composition/information on ingredients**3.1 Substance** : Not applicable**3.2 Mixture****Component and Amount**

Component	Amount	CAS No.
Pigments	1-5%	Trade Secret
Glycerol	15-20%	56-81-5
Water	60-65%	7732-18-5
Resins	10-15%	Trade Secret
Additives	1-5%	Trade Secret

Additional information

The specific chemical identify and exact percentages of composition of the mixture has been withheld as a Trade Secrets in accordance with the provisions of paragraph (i) of § 1910.1200 of 29 CFR1910.1200 .

4. First-aid measures**4.1 Description of First-aid measures****After inhalation:**

Call a doctor/physician if you feel unwell.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:

Wash with soap and water

Call a doctor/physician if you feel unwell

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse.

After eye contact:

Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
If eye irritation persists : Get medical advice/attention

After ingestion:

Call a POISON CENTER or doctor/physician if you feel unwell

Protection of the person who takes first aid

Nothing in particular.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to this product known.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific and immediate treatment, but should consult a doctor.

5. Fire-fighting measures

5.1 Suitable Extinguishing media

Carbon dioxide, dry chemical powder, water fog, foam

5.2 Special hazards arising from the substance or mixture

Prohibition extinguishing media for safety reason

Water spray (straight)

5.3 Advice for firefighters

Specific hazards

This product is not combustible. But evaporated residue is combustible.
May produce toxic fumes if burning.

Specific fire fighting procedures

If safe to do so, move undamaged containers from the fire area.
If can't move the container, cool containers and surrounding with spray water.
Cool containers with large quantities of water until well after extinguished the fire.

Special protective equipment for fire-fighters

Fire-fighting should be performed from the windward side.
Respiratory protection, and other suitable protective equipment

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

The pollution area should be established as off limits without concerned persons.

Protective equipment and emergency measure

Do not touch the leakage or its damaged container without suitable protection.
Do not walk through the leakage.
Keep sufficient ventilation if the area is indoor.
Remove ignition sources.

6.2 Environmental precautions

Keep away from drains, and prevent from releasing to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Use non-flammable absorbent materials, and put them in airtight container.
Dispose of absorbent in accordance with law.

Prevention of secondary disaster

Remove nearby ignition source and hot surface.

6.4 Reference to other sections

Refer to section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Technical measures

Do suitable equipment measures and use suitable protection that refer to
"8. Exposure control/ personal protection".

Local exhaust ventilation and general ventilation

Use local exhaust ventilation and general ventilation that refer to "8. Exposure control/ personal protection".

Caution

When handling do not use high temperature articles, spark and fire.
 Handle container with care, do not make it turn over, drop, give impact and drag.
 Do not breathe, contact and swallow.
 Maintain air concentrations below exposure limit using exhaust ventilation.
 Do not eat, drink or smoke when using this product.
 Wash hand thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.

Avoid contact

Refer to section 10 about stability and reactivity.

7.2 Conditions for safe storage, including incompatibilities

Storage

Incompatible materials

Refer to section 10 about stability and reactivity.

Storage condition

Store away from heat/sparks/open flames – No smoking
 Store in a well ventilated place. Keep cool and container tightly closed.
 Store locked up.

The Containers

Use the container that our company filled up when ship products

7.3 Specific end uses

Not applicable

8. Exposure control/ personal protection

8.1 Control parameters

Exposure limit values

Chemical name	OSHA Permissible Exposure Limits (PEL)	ACGIH TLV-TWA
Glycerol	15mg/m3	10mg/m3 (mist,TWA, 2009)

8.2 Exposure controls

Equipment measures

Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.
 Take precautionary measures against static discharge.
 Put up emergency eyewash and shower in case of storage or handling about this product.

Protection

Respiratory protection

If necessary use suitable respiratory protection.

Hand protection

Use suitable protective gloves.

Eye protection

Use suitable eye protection.

Skin/body protection

If necessary use suitable face protection.

Hygiene measures

Do not eat, drink or smoke when using this product.
 Wash thoroughly after handling.

9. Physical and chemical properties

Appearance

Blue Liquid

Odour

A little peculiar odour

Odour threshold

No data available

pH

No data available

Evaporation rate	No data available
Flammability	No data available
Melting point / Coagulating point	No data available
Boiling point	No data available
Flash point	No data available
Explosive limit UEL	No data available
Explosive limit LEL	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Ignition point	No data available
Decomposition point	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

Other information
No data available

10. Stability and reactivity

Chemical stability	This product is stable in normal condition.
Materials to Avoid	No data available
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No data available

11. Toxicological information

Acute toxicity—Oral	Classification not possible
Acute toxicity—Dermal	Classification not possible
Acute toxicity—Inhalation : vapour	Classification not possible
Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity(Singel exposure)	Classification not possible
Specific target organ toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

12. Ecological information

Hazardous to the aquatic environment(acute)	Not classified
Hazardous to the aquatic environment(chronic)	Not classified
Degradability	No data is available
Bioaccumulative potential	No data is available
Mobility in soil	No data is available

13. Disposal considerations

Waste treatment methods	
Waste residues	Disposal must be made according to official regulations. Avoid release to the environment.
Contaminated container and packaging	Do not flush into the sewer.

Remove all contents when you dispose of empty containers.

14. Transport information

- 14.1 Un number**
- 14.2 UN proper shipping name**
- 14.3 Transport hazard class(es)**
- 14.4 Packaging group**

International regulation

IMDG (Maritime transport)

UN No.	Not applicable
Class	-
Packing Group	-
Marine Pollutant	-
Shipping name	-

ICAO/IATA (Air transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

ADR/RID (Land transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

14.5 Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

14.6 Special precautions for user

Not applicable.

Special precautions

- Prevent from falling, stumbling and doing damage when the container loading..
- Avoid acute vibration and friction for container.
- If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency.
- Avoid transport with foods or feeds.
- Above regulations are not applied to transport of writing instruments filled with the ink.
- Follow all regulation in your country.

15. Regulatory information

Follow all regulation in your country.

16. Other information

In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.
 The information contained in this sheet is based on the data available at now.
 But this shall not constitute a guarantee for any specific or classification.
 Please be alert to handling this product because chemicals shall have unknown hazards.
 This sheet may be revised when we get new information.
 The information is assumed in the case of large-scale handling on business operations.
 They cannot be always applicable to general use of writing instruments.

Revision

2018/11/16 First version

Safety Data Sheet

Version : OSHA-1.0
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1.1- Product identifier

Product name : WKT7 mild Lemom Yellow Ink

1.2 - Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture : Ink for writing implement
- Recommended restrictions on use : No information available
- Uses Advised Against : No information available

1.3 - Details of the supplier of the SDS

• Manufacture : ZEBRA CO., LTD.
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2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of § 1910.1200

2.1 Classification of the substance or mixture

Physical hazards

Flammable liquids	Not classified
Pyrophoric liquids	Not classified
Self-heating mixtures	Not classified
Corrosive to metals	Not classified

Health hazards

Acute toxicity-Oral	Classification not possible
Acute toxicity-Dermal	Classification not possible
Acute toxicity-Inhalation: vapour	Classification not possible

<u>Unknown Acute Oral Toxicity:</u>	50% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Dermal Toxicity:</u>	51% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Inhalation: vapour Toxicity:</u>	69% of the mixture consists of ingredient(s) of unknown acute toxicity.

Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity (Single exposure)	Classification not possible
Specific target organ toxicity (Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

Hazard(s) not otherwise classified (HNOC)

None known.

2.2 Label elements

Pictograms or Symbol

Exclamation mark



Signal Word

Warning

Hazard statement

May cause an allergic skin reaction
Causes serious eye irritation

Precautionary Statements

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray
Wash hands thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection

Response

IF ON SKIN: Wash with soap and water
IF IN EYES: Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do . Continue rinsing
If skin irritation or a rash occurs: Get medical advice/attention
If eye irritation persists : Get medical advice/attention
Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep cool and container tightly closed.

Disposal

Dispose of contents/container to in accordance with local government regulation.

3. Composition/information on ingredients

3.1 Substance : Not applicable

3.2 Mixture

Component and Amount

Component	Amount	CAS No.
Pigments	1-5%	Trade Secret
Glycerol	15-20%	56-81-5
Water	60-65%	7732-18-5
Resins	10-15%	Trade Secret
Additives	1-5%	Trade Secret

Additional information

The specific chemical identify and exact percentages of composition of the mixture has been withheld as a Trade Secrets in accordance with the provisions of paragraph (i) of § 1910.1200 of 29 CFR1910.1200 .

4. First-aid measures

4.1 Description of First-aid measures

After inhalation:

Call a doctor/physician if you feel unwell.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:

Wash with soap and water
Call a doctor/physician if you feel unwell
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse.

After eye contact:

Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention

After ingestion:

Call a POISON CENTER or doctor/physician if you feel unwell

Protection of the person who takes first aid

Nothing in particular.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to this product known.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific and immediate treatment, but should consult a doctor.

5. Fire-fighting measures

5.1 Suitable Extinguishing media

Carbon dioxide, dry chemical powder, water fog, foam

5.2 Special hazards arising from the substance or mixture

Prohibition extinguishing media for safety reason

Water spray (straight)

5.3 Advice for firefighters

Specific hazards

This product is not combustible. But evaporated residue is combustible.
May produce toxic fumes if burning.

Specific fire fighting procedures

If safe to do so, move undamaged containers from the fire area.
If can't move the container, cool containers and surrounding with spray water.
Cool containers with large quantities of water until well after extinguished the fire.

Special protective equipment for fire-fighters

Fire-fighting should be performed from the windward side.
Respiratory protection, and other suitable protective equipment

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

The pollution area should be established as off limits without concerned persons.

Protective equipment and emergency measure

Do not touch the leakage or its damaged container without suitable protection.
Do not walk through the leakage.
Keep sufficient ventilation if the area is indoor.
Remove ignition sources.

6.2 Environmental precautions

Keep away from drains, and prevent from releasing to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Use non-flammable absorbent materials, and put them in airtight container.
Dispose of absorbent in accordance with law.

Prevention of secondary disaster

Remove nearby ignition source and hot surface.

6.4 Reference to other sections

Refer to section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Technical measures

Do suitable equipment measures and use suitable protection that refer to "8. Exposure control/ personal protection".

Local exhaust ventilation and general ventilation

Use local exhaust ventilation and general ventilation that refer to "8. Exposure control/ personal protection".

Caution

When handling do not use high temperature articles, spark and fire.
 Handle container with care, do not make it turn over, drop, give impact and drag.
 Do not breathe, contact and swallow.
 Maintain air concentrations below exposure limit using exhaust ventilation.
 Do not eat, drink or smoke when using this product.
 Wash hand thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.

Avoid contact

Refer to section 10 about stability and reactivity.

7.2 Conditions for safe storage, including incompatibilities

Storage

Incompatible materials

Refer to section 10 about stability and reactivity.

Storage condition

Store away from heat/sparks/open flames – No smoking
 Store in a well ventilated place. Keep cool and container tightly closed.
 Store locked up.

The Containers

Use the container that our company filled up when ship products

7.3 Specific end uses

Not applicable

8. Exposure control/ personal protection

8.1 Control parameters

Exposure limit values

Chemical name	OSHA Permissible Exposure Limits (PEL)	ACGIH TLV-TWA
Glycerol	15mg/m3	10mg/m3 (mist,TWA, 2009)

8.2 Exposure controls

Equipment measures

Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.
 Take precautionary measures against static discharge.
 Put up emergency eyewash and shower in case of storage or handling about this product.

Protection

Respiratory protection

If necessary use suitable respiratory protection.

Hand protection

Use suitable protective gloves.

Eye protection

Use suitable eye protection.

Skin/body protection

If necessary use suitable face protection.

Hygiene measures

Do not eat, drink or smoke when using this product.
 Wash thoroughly after handling.

9. Physical and chemical properties

Appearance

Yellow Liquid

Odour

A little peculiar odour

Odour threshold

No data available

pH

No data available

Evaporation rate	No data available
Flammability	No data available
Melting point / Coagulating point	No data available
Boiling point	No data available
Flash point	No data available
Explosive limit UEL	No data available
Explosive limit LEL	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Ignition point	No data available
Decomposition point	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

Other information
 No data available

10. Stability and reactivity

Chemical stability	This product is stable in normal condition.
Materials to Avoid	No data available
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No data available

11. Toxicological information

Acute toxicity—Oral	Classification not possible
Acute toxicity—Dermal	Classification not possible
Acute toxicity—Inhalation : vapour	Classification not possible
Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity(Singel exposure)	Classification not possible
Specific target organ toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

12. Ecological information

Hazardous to the aquatic environment(acute)	Not classified
Hazardous to the aquatic environment(chronic)	Not classified
Degradability	No data is available
Bioaccumulative potential	No data is available
Mobility in soil	No data is available

13. Disposal considerations

Waste treatment methods
Waste residues
Disposal must be made according to official regulations. Avoid release to the environment.
Contaminated container and packaging
Do not flush into the sewer.

Remove all contents when you dispose of empty containers.

14. Transport information

14.1 Un number

14.2 UN proper shipping name

14.3 Transport hazard class(es)

14.4 Packaging group

International regulation

IMDG (Maritime transport)

UN No.	Not applicable
Class	-
Packing Group	-
Marine Pollutant	-
Shipping name	-

ICAO/IATA (Air transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

ADR/RID (Land transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

14.5 Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

14.6 Special precautions for user

Not applicable.

Special precautions

Prevent from falling, stumbling and doing damage when the container loading..

Avoid acute vibration and friction for container.

If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency.

Avoid transport with foods or feeds.

Above regulations are not applied to transport of writing instruments filled with the ink.

Follow all regulation in your country.

15. Regulatory information

Follow all regulation in your country.

16. Other information

In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.

The information contained in this sheet is based on the data available at now.

But this shall not constitute a guarantee for any specific or classification.

Please be alert to handling this product because chemicals shall have unknown hazards.

This sheet may be revised when we get new information.

The information is assumed in the case of large-scale handling on business operations.

They cannot be always applicable to general use of writing instruments.

Revision

2018/11/16 First version

Safety Data Sheet

Version : OSHA-1.0
Date of issue : 2018-11-16
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1.1- Product identifier

Product name : WKT7 mild Coral pink Ink

1.2 - Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture : Ink for writing implement
- Recommended restrictions on use : No information available
- Uses Advised Against : No information available

1.3 - Details of the supplier of the SDS

• Manufacture : ZEBRA CO., LTD.
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2.1 Classification of the substance or mixture

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Flammable liquids	Not classified
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Health hazards

Acute toxicity-Oral	Classification not possible
Acute toxicity-Dermal	Classification not possible
Acute toxicity-Inhalation: vapour	Classification not possible

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Aspiration hazard	Classification not possible

Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

Hazard(s) not otherwise classified (HNOC)

None known.

2.2 Label elements

Pictograms or Symbol

Exclamation mark



Signal Word

Warning

Hazard statement

May cause an allergic skin reaction
 Causes serious eye irritation

Precautionary Statements

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray
 Wash hands thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection

Response

IF ON SKIN: Wash with soap and water
 IF IN EYES: Rinse continuously with water for several minutes.
 Remove contact lenses if present and easy to do . Continue rinsing
 If skin irritation or a rash occurs: Get medical advice/attention
 If eye irritation persists : Get medical advice/attention
 Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep cool and container tightly closed.

Disposal

Dispose of contents/container to in accordance with local government regulation.

3. Composition/information on ingredients

3.1 Substance : Not applicable

3.2 Mixture

Component and Amount

Component	Amount	CAS No.
Pigments	1-5%	Trade Secret
Glycerol	15-20%	56-81-5
Water	60-65%	7732-18-5
Resins	10-15%	Trade Secret
Additives	1-5%	Trade Secret

Additional information

The specific chemical identify and exact percentages of composition of the mixture has been withheld as a Trade Secrets in accordance with the provisions of paragraph (i) of § 1910.1200 of 29 CFR1910.1200 .

4. First-aid measures

4.1 Description of First-aid measures

After inhalation:

Call a doctor/physician if you feel unwell.
 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:

Wash with soap and water
 Call a doctor/physician if you feel unwell
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash it before reuse.

After eye contact:

Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
If eye irritation persists : Get medical advice/attention

After ingestion:

Call a POISON CENTER or doctor/physician if you feel unwell

Protection of the person who takes first aid

Nothing in particular.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to this product known.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific and immediate treatment, but should consult a doctor.

5. Fire-fighting measures

5.1 Suitable Extinguishing media

Carbon dioxide, dry chemical powder, water fog, foam

5.2 Special hazards arising from the substance or mixture

Prohibition extinguishing media for safety reason

Water spray (straight)

5.3 Advice for firefighters

Specific hazards

This product is not combustible. But evaporated residue is combustible.
May produce toxic fumes if burning.

Specific fire fighting procedures

If safe to do so, move undamaged containers from the fire area.
If can't move the container, cool containers and surrounding with spray water.
Cool containers with large quantities of water until well after extinguished the fire.

Special protective equipment for fire-fighters

Fire-fighting should be performed from the windward side.
Respiratory protection, and other suitable protective equipment

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

The pollution area should be established as off limits without concerned persons.

Protective equipment and emergency measure

Do not touch the leakage or its damaged container without suitable protection.
Do not walk through the leakage.
Keep sufficient ventilation if the area is indoor.
Remove ignition sources.

6.2 Environmental precautions

Keep away from drains, and prevent from releasing to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Use non-flammable absorbent materials, and put them in airtight container.
Dispose of absorbent in accordance with law.

Prevention of secondary disaster

Remove nearby ignition source and hot surface.

6.4 Reference to other sections

Refer to section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Technical measures

Do suitable equipment measures and use suitable protection that refer to
"8. Exposure control/ personal protection".

Local exhaust ventilation and general ventilation

Use local exhaust ventilation and general ventilation that refer to "8. Exposure control/ personal protection".

Caution

When handling do not use high temperature articles, spark and fire.
 Handle container with care, do not make it turn over, drop, give impact and drag.
 Do not breathe, contact and swallow.
 Maintain air concentrations below exposure limit using exhaust ventilation.
 Do not eat, drink or smoke when using this product.
 Wash hand thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.

Avoid contact

Refer to section 10 about stability and reactivity.

7.2 Conditions for safe storage, including incompatibilities

Storage

Incompatible materials

Refer to section 10 about stability and reactivity.

Storage condition

Store away from heat/sparks/open flames – No smoking
 Store in a well ventilated place. Keep cool and container tightly closed.
 Store locked up.

The Containers

Use the container that our company filled up when ship products

7.3 Specific end uses

Not applicable

8. Exposure control/ personal protection

8.1 .1 Control parameters

Exposure limit values

Chemical name	OSHA Permissible Exposure Limits (PEL)	ACGIH TLV-TWA
Glycerol	15mg/m3	10mg/m3 (mist,TWA, 2009)

8.2 Exposure controls

Equipment measures

Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.
 Take precautionary measures against static discharge.
 Put up emergency eyewash and shower in case of storage or handling about this product.

Protection

Respiratory protection

If necessary use suitable respiratory protection.

Hand protection

Use suitable protective gloves.

Eye protection

Use suitable eye protection.

Skin/body protection

If necessary use suitable face protection.

Hygiene measures

Do not eat, drink or smoke when using this product.
 Wash thoroughly after handling.

9. Physical and chemical properties

Appearance

Pink Liquid

Odour

A little peculiar odour

Odour threshold

No data available

pH

No data available

Evaporation rate	No data available
Flammability	No data available
Melting point / Coagulating point	No data available
Boiling point	No data available
Flash point	No data available
Explosive limit UEL	No data available
Explosive limit LEL	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Ignition point	No data available
Decomposition point	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

Other information
 No data available

10. Stability and reactivity

Chemical stability	This product is stable in normal condition.
Materials to Avoid	No data available
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No data available

11. Toxicological information

Acute toxicity—Oral	Classification not possible
Acute toxicity—Dermal	Classification not possible
Acute toxicity—Inhalation : vapour	Classification not possible
Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity(Singel exposure)	Classification not possible
Specific target organ toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

12. Ecological information

Hazardous to the aquatic environment(acute)	Not classified
Hazardous to the aquatic environment(chronic)	Not classified
Degradability	No data is available
Bioaccumulative potential	No data is available
Mobility in soil	No data is available

13. Disposal considerations

Waste treatment methods	
Waste residues	
Disposal must be made according to official regulations.	
Avoid release to the environment.	
Contaminated container and packaging	
Do not flush into the sewer.	

Remove all contents when you dispose of empty containers.

14. Transport information

14.1 Un number

14.2 UN proper shipping name

14.3 Transport hazard class(es)

14.4 Packaging group

International regulation

IMDG (Maritime transport)

UN No.	Not applicable
Class	-
Packing Group	-
Marine Pollutant	-
Shipping name	-

ICAO/IATA (Air transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

ADR/RID (Land transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

14.5 Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

14.6 Special precautions for user

Not applicable.

Special precautions

- Prevent from falling, stumbling and doing damage when the container loading..
- Avoid acute vibration and friction for container.
- If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency.
- Avoid transport with foods or feeds.
- Above regulations are not applied to transport of writing instruments filled with the ink.
- Follow all regulation in your country.

15. Regulatory information

Follow all regulation in your country.

16. Other information

In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.

The information contained in this sheet is based on the data available at now.

But this shall not constitute a guarantee for any specific or classification.

Please be alert to handling this product because chemicals shall have unknown hazards.

This sheet may be revised when we get new information.

The information is assumed in the case of large-scale handling on business operations.

They cannot be always applicable to general use of writing instruments.

Revision

2018/11/16 First version

Safety Data Sheet

Version OSHA-1.0
Date of issue : 2018-11-16
Revision Date :

1. Identification of the mixture and of the company

1.1- Product identifier

Product name : WKT7 mild Apricot Ink

1.2 - Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture : Ink for writing implement
- Recommended restrictions on use : No information available
- Uses Advised Against : No information available

1.3 - Details of the supplier of the SDS

• Manufacture : ZEBRA CO., LTD.
2-9 Higashi-gokencho Shinjuku-ku Tokyo JAPAN
TEL : +81-3-3268-1193
FAX : +81-3-3268-1197

1.4 - Emergency telephone number

• Manufacture : +81-3-3268-1193
This phone number is available only during office hours: 9 a.m. to half past 5 p.m.
(Japan time)

2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of § 1910.1200

2.1 Classification of the substance or mixture

Physical hazards

Flammable liquids	Not classified
Pyrophoric liquids	Not classified
Self-heating mixtures	Not classified
Corrosive to metals	Not classified

Health hazards

Acute toxicity-Oral	Classification not possible
Acute toxicity-Dermal	Classification not possible
Acute toxicity-Inhalation: vapour	Classification not possible

<u>Unknown Acute Oral Toxicity:</u>	50% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Dermal Toxicity:</u>	51% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Inhalation: vapour Toxicity:</u>	69% of the mixture consists of ingredient(s) of unknown acute toxicity.

Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity (Single exposure)	Classification not possible
Specific target organ toxicity (Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

Hazard(s) not otherwise classified (HNOC)

None known.

2.2 Label elements

Pictograms or Symbol

Exclamation mark



Signal Word

Warning

Hazard statement

May cause an allergic skin reaction
 Causes serious eye irritation

Precautionary Statements

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray
 Wash hands thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection

Response

IF ON SKIN: Wash with soap and water
 IF IN EYES: Rinse continuously with water for several minutes.
 Remove contact lenses if present and easy to do . Continue rinsing
 If skin irritation or a rash occurs: Get medical advice/attention
 If eye irritation persists : Get medical advice/attention
 Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep cool and container tightly closed.

Disposal

Dispose of contents/container to in accordance with local government regulation.

3. Composition/information on ingredients

3.1 Substance : Not applicable

3.2 Mixture

Component and Amount

Component	Amount	CAS No.
Pigments	1-5%	Trade Secret
Glycerol	15-20%	56-81-5
Water	60-65%	7732-18-5
Resins	10-15%	Trade Secret
Additives	1-5%	Trade Secret

Additional information

The specific chemical identify and exact percentages of composition of the mixture has been withheld as a Trade Secrets in accordance with the provisions of paragraph (i) of § 1910.1200 of 29 CFR1910.1200 .

4. First-aid measures

4.1 Description of First-aid measures

After inhalation:

Call a doctor/physician if you feel unwell.
 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:

Wash with soap and water
 Call a doctor/physician if you feel unwell
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash it before reuse.

After eye contact:

Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
If eye irritation persists : Get medical advice/attention

After ingestion:

Call a POISON CENTER or doctor/physician if you feel unwell

Protection of the person who takes first aid

Nothing in particular.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to this product known.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific and immediate treatment, but should consult a doctor.

5. Fire-fighting measures

5.1 Suitable Extinguishing media

Carbon dioxide, dry chemical powder, water fog, foam

5.2 Special hazards arising from the substance or mixture

Prohibition extinguishing media for safety reason

Water spray (straight)

5.3 Advice for firefighters

Specific hazards

This product is not combustible. But evaporated residue is combustible.
May produce toxic fumes if burning.

Specific fire fighting procedures

If safe to do so, move undamaged containers from the fire area.
If can't move the container, cool containers and surrounding with spray water.
Cool containers with large quantities of water until well after extinguished the fire.

Special protective equipment for fire-fighters

Fire-fighting should be performed from the windward side.
Respiratory protection, and other suitable protective equipment

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

The pollution area should be established as off limits without concerned persons.

Protective equipment and emergency measure

Do not touch the leakage or its damaged container without suitable protection.
Do not walk through the leakage.
Keep sufficient ventilation if the area is indoor.
Remove ignition sources.

6.2 Environmental precautions

Keep away from drains, and prevent from releasing to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Use non-flammable absorbent materials, and put them in airtight container.
Dispose of absorbent in accordance with law.

Prevention of secondary disaster

Remove nearby ignition source and hot surface.

6.4 Reference to other sections

Refer to section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Technical measures

Do suitable equipment measures and use suitable protection that refer to
"8. Exposure control/ personal protection".

Local exhaust ventilation and general ventilation

Use local exhaust ventilation and general ventilation that refer to "8. Exposure control/ personal protection".

Caution

- When handling do not use high temperature articles, spark and fire.
- Handle container with care, do not make it turn over, drop, give impact and drag.
- Do not breathe, contact and swallow.
- Maintain air concentrations below exposure limit using exhaust ventilation.
- Do not eat, drink or smoke when using this product.
- Wash hand thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.

Avoid contact

Refer to section 10 about stability and reactivity.

7.2 Conditions for safe storage, including incompatibilities

Storage

Incompatible materials

Refer to section 10 about stability and reactivity.

Storage condition

- Store away from heat/sparks/open flames – No smoking
- Store in a well ventilated place. Keep cool and container tightly closed.
- Store locked up.

The Containers

Use the container that our company filled up when ship products

7.3 Specific end uses

Not applicable

8. Exposure control/ personal protection

8.1 .1 Control parameters

Exposure limit values

Chemical name	OSHA Permissible Exposure Limits (PEL)	ACGIH TLV-TWA
Glycerol	15mg/m3	10mg/m3 (mist,TWA, 2009)

8.2 Exposure controls

Equipment measures

- Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.
- Take precautionary measures against static discharge.
- Put up emergency eyewash and shower in case of storage or handling about this product.

Protection

Respiratory protection

If necessary use suitable respiratory protection.

Hand protection

Use suitable protective gloves.

Eye protection

Use suitable eye protection.

Skin/body protection

If necessary use suitable face protection.

Hygiene measures

- Do not eat, drink or smoke when using this product.
- Wash thoroughly after handling.

9. Physical and chemical properties

Appearance

Orange Liquid

Odour

A little peculiar odour

Odour threshold

No data available

pH

No data available

Evaporation rate	No data available
Flammability	No data available
Melting point / Coagulating point	No data available
Boiling point	No data available
Flash point	No data available
Explosive limit UEL	No data available
Explosive limit LEL	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Ignition point	No data available
Decomposition point	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

Other information
No data available

10. Stability and reactivity

Chemical stability	This product is stable in normal condition.
Materials to Avoid	No data available
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No data available

11. Toxicological information

Acute toxicity—Oral	Classification not possible
Acute toxicity—Dermal	Classification not possible
Acute toxicity—Inhalation : vapour	Classification not possible
Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity(Singel exposure)	Classification not possible
Specific target organ toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

12. Ecological information

Hazardous to the aquatic environment(acute)	Not classified
Hazardous to the aquatic environment(chronic)	Not classified
Degradability	No data is available
Bioaccumulative potential	No data is available
Mobility in soil	No data is available

13. Disposal considerations

Waste treatment methods	
Waste residues	Disposal must be made according to official regulations. Avoid release to the environment.
Contaminated container and packaging	Do not flush into the sewer.

Remove all contents when you dispose of empty containers.

14. Transport information

14.1 Un number

14.2 UN proper shipping name

14.3 Transport hazard class(es)

14.4 Packaging group

International regulation

IMDG (Maritime transport)

UN No.	Not applicable
Class	-
Packing Group	-
Marine Pollutant	-
Shipping name	-

ICAO/IATA (Air transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

ADR/RID (Land transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

14.5 Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

14.6 Special precautions for user

Not applicable.

Special precautions

Prevent from falling, stumbling and doing damage when the container loading..

Avoid acute vibration and friction for container.

If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency.

Avoid transport with foods or feeds.

Above regulations are not applied to transport of writing instruments filled with the ink.

Follow all regulation in your country.

15. Regulatory information

Follow all regulation in your country.

16. Other information

In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.

The information contained in this sheet is based on the data available at now.

But this shall not constitute a guarantee for any specific or classification.

Please be alert to handling this product because chemicals shall have unknown hazards.

This sheet may be revised when we get new information.

The information is assumed in the case of large-scale handling on business operations.

They cannot be always applicable to general use of writing instruments.

Revision

2018/11/16 First version

Safety Data Sheet

Version : OSHA-1.0
Date of issue : 2018-11-16
Revision Date :

1. Identification of the mixture and of the company

1.1- Product identifier

Product name : WKT7 mild Dark Grey Ink

1.2 - Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture : Ink for writing implement
- Recommended restrictions on use : No information available
- Uses Advised Against : No information available

1.3 - Details of the supplier of the SDS

• Manufacture : ZEBRA CO., LTD.
2-9 Higashi-gokencho Shinjuku-ku Tokyo JAPAN
TEL : +81-3-3268-1193
FAX : +81-3-3268-1197

1.4 - Emergency telephone number

• Manufacture : +81-3-3268-1193
This phone number is available only during office hours: 9 a.m. to half past 5 p.m.
(Japan time)

2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of § 1910.1200

2.1 Classification of the substance or mixture

Physical hazards

Flammable liquids	Not classified
Pyrophoric liquids	Not classified
Self-heating mixtures	Not classified
Corrosive to metals	Not classified

Health hazards

Acute toxicity-Oral	Classification not possible
Acute toxicity-Dermal	Classification not possible
Acute toxicity-Inhalation: vapour	Classification not possible

<u>Unknown Acute Oral Toxicity:</u>	50% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Dermal Toxicity:</u>	51% of the mixture consists of ingredient(s) of unknown acute toxicity.
<u>Unknown Acute Inhalation: vapour Toxicity:</u>	69% of the mixture consists of ingredient(s) of unknown acute toxicity.

Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity (Single exposure)	Classification not possible
Specific target organ toxicity (Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

Hazard(s) not otherwise classified (HNOC)

None known.

2.2 Label elements

Pictograms or Symbol

Exclamation mark



Signal Word

Warning

Hazard statement

May cause an allergic skin reaction
 Causes serious eye irritation

Precautionary Statements

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray
 Wash hands thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection

Response

IF ON SKIN: Wash with soap and water
 IF IN EYES: Rinse continuously with water for several minutes.
 Remove contact lenses if present and easy to do . Continue rinsing
 If skin irritation or a rash occurs: Get medical advice/attention
 If eye irritation persists : Get medical advice/attention
 Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep cool and container tightly closed.

Disposal

Dispose of contents/container to in accordance with local government regulation.

3. Composition/information on ingredients

3.1 Substance : Not applicable

3.2 Mixture

Component and Amount

Component	Amount	CAS No.
Pigments	1-5%	Trade Secret
Glycerol	15-20%	56-81-5
Water	60-65%	7732-18-5
Resins	10-15%	Trade Secret
Additives	1-5%	Trade Secret

Additional information

The specific chemical identify and exact percentages of composition of the mixture has been withheld as a Trade Secrets in accordance with the provisions of paragraph (i) of § 1910.1200 of 29 CFR1910.1200 .

4. First-aid measures

4.1 Description of First-aid measures

After inhalation:

Call a doctor/physician if you feel unwell.
 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:

Wash with soap and water
 Call a doctor/physician if you feel unwell
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash it before reuse.

After eye contact:

Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
If eye irritation persists : Get medical advice/attention

After ingestion:

Call a POISON CENTER or doctor/physician if you feel unwell

Protection of the person who takes first aid

Nothing in particular.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to this product known.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific and immediate treatment, but should consult a doctor.

5. Fire-fighting measures

5.1 Suitable Extinguishing media

Carbon dioxide, dry chemical powder, water fog, foam

5.2 Special hazards arising from the substance or mixture

Prohibition extinguishing media for safety reason

Water spray (straight)

5.3 Advice for firefighters

Specific hazards

This product is not combustible. But evaporated residue is combustible.
May produce toxic fumes if burning.

Specific fire fighting procedures

If safe to do so, move undamaged containers from the fire area.
If can't move the container, cool containers and surrounding with spray water.
Cool containers with large quantities of water until well after extinguished the fire.

Special protective equipment for fire-fighters

Fire-fighting should be performed from the windward side.
Respiratory protection, and other suitable protective equipment

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

The pollution area should be established as off limits without concerned persons.

Protective equipment and emergency measure

Do not touch the leakage or its damaged container without suitable protection.
Do not walk through the leakage.
Keep sufficient ventilation if the area is indoor.
Remove ignition sources.

6.2 Environmental precautions

Keep away from drains, and prevent from releasing to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Use non-flammable absorbent materials, and put them in airtight container.
Dispose of absorbent in accordance with law.

Prevention of secondary disaster

Remove nearby ignition source and hot surface.

6.4 Reference to other sections

Refer to section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Technical measures

Do suitable equipment measures and use suitable protection that refer to
"8. Exposure control/ personal protection".

Local exhaust ventilation and general ventilation

Use local exhaust ventilation and general ventilation that refer to "8. Exposure control/ personal protection".

Caution

When handling do not use high temperature articles, spark and fire.
 Handle container with care, do not make it turn over, drop, give impact and drag.
 Do not breathe, contact and swallow.
 Maintain air concentrations below exposure limit using exhaust ventilation.
 Do not eat, drink or smoke when using this product.
 Wash hand thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.

Avoid contact

Refer to section 10 about stability and reactivity.

7.2 Conditions for safe storage, including incompatibilities

Storage

Incompatible materials

Refer to section 10 about stability and reactivity.

Storage condition

Store away from heat/sparks/open flames – No smoking
 Store in a well ventilated place. Keep cool and container tightly closed.
 Store locked up.

The Containers

Use the container that our company filled up when ship products

7.3 Specific end uses

Not applicable

8. Exposure control/ personal protection

8.1 Control parameters

Exposure limit values

Chemical name	OSHA Permissible Exposure Limits (PEL)	ACGIH TLV-TWA
Glycerol	15mg/m3	10mg/m3 (mist,TWA, 2009)

8.2 Exposure controls

Equipment measures

Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.
 Take precautionary measures against static discharge.
 Put up emergency eyewash and shower in case of storage or handling about this product.

Protection

Respiratory protection

If necessary use suitable respiratory protection.

Hand protection

Use suitable protective gloves.

Eye protection

Use suitable eye protection.

Skin/body protection

If necessary use suitable face protection.

Hygiene measures

Do not eat, drink or smoke when using this product.
 Wash thoroughly after handling.

9. Physical and chemical properties

Appearance

Grey Liquid

Odour

A little peculiar odour

Odour threshold

No data available

pH

No data available

Evaporation rate	No data available
Flammability	No data available
Melting point / Coagulating point	No data available
Boiling point	No data available
Flash point	No data available
Explosive limit UEL	No data available
Explosive limit LEL	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Ignition point	No data available
Decomposition point	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

Other information
No data available

10. Stability and reactivity

Chemical stability	This product is stable in normal condition.
Materials to Avoid	No data available
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No data available

11. Toxicological information

Acute toxicity—Oral	Classification not possible
Acute toxicity—Dermal	Classification not possible
Acute toxicity—Inhalation : vapour	Classification not possible
Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Category 2
Respiratory or skin sensitization	Classification not possible / Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity(Singel exposure)	Classification not possible
Specific target organ toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible

12. Ecological information

Hazardous to the aquatic environment(acute)	Not classified
Hazardous to the aquatic environment(chronic)	Not classified
Degradability	No data is available
Bioaccumulative potential	No data is available
Mobility in soil	No data is available

13. Disposal considerations

Waste treatment methods
Waste residues Disposal must be made according to official regulations. Avoid release to the environment.
Contaminated container and packaging Do not flush into the sewer.

Remove all contents when you dispose of empty containers.

14. Transport information

- 14.1 Un number**
- 14.2 UN proper shipping name**
- 14.3 Transport hazard class(es)**
- 14.4 Packaging group**

International regulation

IMDG (Maritime transport)

UN No.	Not applicable
Class	-
Packing Group	-
Marine Pollutant	-
Shipping name	-

ICAO/IATA (Air transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

ADR/RID (Land transport)

UN No.	Not applicable
Class	-
Packing Group	-
Shipping name	-

14.5 Environmental hazards

Hazardous to the aquatic environment (acute)	Not classified
Hazardous to the aquatic environment (chronic)	Not classified

14.6 Special precautions for user

Not applicable.

Special precautions

- Prevent from falling, stumbling and doing damage when the container loading..
- Avoid acute vibration and friction for container.
- If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency.
- Avoid transport with foods or feeds.
- Above regulations are not applied to transport of writing instruments filled with the ink.
- Follow all regulation in your country.

15. Regulatory information

Follow all regulation in your country.

16. Other information

In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.
 The information contained in this sheet is based on the data available at now.
 But this shall not constitute a guarantee for any specific or classification.
 Please be alert to handling this product because chemicals shall have unknown hazards.
 This sheet may be revised when we get new information.
 The information is assumed in the case of large-scale handling on business operations.
 They cannot be always applicable to general use of writing instruments.

Revision

2018/11/16 First version