

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5CY

Other means of identification:

ECO-SOL MAX3, ESL5-CY

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

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Other adverse effects:

No known significant effects or critical hazards.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concen- tration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

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6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.

Handle and open container with care.

All work processes must always be designed so that the following is as low as possible:

Inhalation, Skin contact, Eye contact

When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.

Conditions to avoid: Protect from sunlight.

Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper CAS No.: 147-14-8	4 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: blue

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	not applicable			
Melting point/freezing point	No data available			
Freezing point	not determined			
Initial boiling point and boiling range	No data available			
Decomposition temperature (°C):	not determined			
Flash point	65 - 67 °C			
Evaporation rate	No data available			
Ignition temperature in °C	not determined			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	No data available			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm³	20 °C		
Bulk density	not determined			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	No data available			
Dynamic viscosity	not determined			
Kinematic viscosity	No data available	40 °C		

9.2. Other information

No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.

Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

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12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—
147-14-8	29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	—

There are no data available on the mixture itself.

12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
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Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.

not relevant

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

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Additional information:

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations

 **[DE] National regulations**

Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

keine Angabe

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

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16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

16.6. Training advice

No data available

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16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH
Department Environmental Service
Westendstraße 199
80686 Munich - Germany

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :
Roland DG Benelux NV

Manufacturer:
Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN
Telefon: + 81-53-484-1224
Telefax: + 81-53-484-1226

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Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5MG

Other means of identification:

ECO-SOL MAX3, ESL5-MG

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

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Other adverse effects:

No known significant effects or critical hazards.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concen- tration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

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6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.

Handle and open container with care.

All work processes must always be designed so that the following is as low as possible:

Inhalation, Skin contact, Eye contact

When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.

Conditions to avoid: Protect from sunlight.

Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type
		② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker
		② DNEL long-term inhalative (systemic)

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: red

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	not applicable			
Melting point/freezing point	No data available			
Freezing point	not determined			
Initial boiling point and boiling range	No data available			
Decomposition temperature (°C):	not determined			
Flash point	65 - 67 °C			
Evaporation rate	No data available			
Ignition temperature in °C	not determined			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	No data available			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm³	20 °C		
Bulk density	not determined			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	No data available			
Dynamic viscosity	not determined			
Kinematic viscosity	No data available	40 °C		

9.2. Other information

No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.

Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

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12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—

There are no data available on the mixture itself.

12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
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Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.
not relevant
14.2. UN proper shipping name
not relevant
14.3. Transport hazard class(es)
not relevant
14.4. Packing group
not relevant
14.5. Environmental hazards
not relevant
14.6. Special precautions for user
not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Additional information:

No dangerous good in sense of these transport regulations.

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

keine Angabe

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

-

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

16.6. Training advice

No data available

Revision date: 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH
Department Environmental Service
Westendstraße 199
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :
Roland DG Benelux NV

Manufacturer:
Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN
Telefon: + 81-53-484-1224
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Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5YE

Other means of identification:

ECO-SOL MAX3, ESL5-5YE

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

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24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

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Other adverse effects:

No known significant effects or critical hazards.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concen- tration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

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6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.

Handle and open container with care.

All work processes must always be designed so that the following is as low as possible:

Inhalation, Skin contact, Eye contact

When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.

Conditions to avoid: Protect from sunlight.

Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type
		② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker
		② DNEL long-term inhalative (systemic)

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: yellow

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm ³	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

9.2. Other information

No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.

Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—

There are no data available on the mixture itself.

12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
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Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.
not relevant
14.2. UN proper shipping name
not relevant
14.3. Transport hazard class(es)
not relevant
14.4. Packing group
not relevant
14.5. Environmental hazards
not relevant
14.6. Special precautions for user
not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Additional information:

No dangerous good in sense of these transport regulations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

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§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

keine Angabe

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

-

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

16.6. Training advice

No data available

Revision date: 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH
Department Environmental Service
Westendstraße 199
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :
Roland DG Benelux NV

Manufacturer:
Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN
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Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-BK

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

Other adverse effects:


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concen- tration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.

Handle and open container with care.

All work processes must always be designed so that the following is as low as possible:

Inhalation, Skin contact, Eye contact

When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.

Conditions to avoid: Protect from sunlight.

Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value
		② short-term occupational exposure limit value
		③ Instantaneous value
		④ Monitoring and observation processes
		⑤ Remark
VLA (FR)	Carbon black CAS No.: 1333-86-4	① 3.5 mg/m ³

8.1.2. biological limit values

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)
Carbon black CAS No.: 1333-86-4	2 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: black

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm ³	20 °C		
Bulk density	<i>not determined</i>			

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

parameter		at °C	Method	Remark
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	No data available			
Dynamic viscosity	not determined			
Kinematic viscosity	No data available	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.
Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

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SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—
1333-86-4	Carbon black	—

There are no data available on the mixture itself.

12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.
not relevant
14.2. UN proper shipping name
not relevant
14.3. Transport hazard class(es)
not relevant
14.4. Packing group
not relevant

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14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Additional information:

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations



[DE] National regulations

Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

keine Angabe

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

-

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements

H319	Causes serious eye irritation.
------	--------------------------------

16.6. Training advice

No data available

Revision date: 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH
Department Environmental Service
Westendstraße 199
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :
Roland DG Benelux NV

Manufacturer:
Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN
Telefon: + 81-53-484-1224
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Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5LC

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

Other adverse effects:


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.
Handle and open container with care.
All work processes must always be designed so that the following is as low as possible:
Inhalation, Skin contact, Eye contact
When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.
Conditions to avoid: Protect from sunlight.
Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 – Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type
		② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper CAS No.: 147-14-8	4 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

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8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: blue

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm³	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.
Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—
147-14-8	29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	—

Es sind keine Daten für die Mischung verfügbar.

12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 18 waste printing toner other than those mentioned in 08 03 17

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.
not relevant
14.2. UN proper shipping name
not relevant
14.3. Transport hazard class(es)
not relevant
14.4. Packing group
not relevant
14.5. Environmental hazards
not relevant
14.6. Special precautions for user
not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Additional information:

No dangerous good in sense of these transport regulations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

keine Angabe

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

-

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

16.6. Training advice

No data available

Revision date: 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH
Department Environmental Service
Westendstraße 199
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :
Roland DG Benelux NV

Manufacturer:
Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN
Telefon: + 81-53-484-1224
Telefax: + 81-53-484-1226

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5LM

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

Other adverse effects:


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concen- tration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.
Handle and open container with care.
All work processes must always be designed so that the following is as low as possible:
Inhalation, Skin contact, Eye contact
When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.
Conditions to avoid: Protect from sunlight.
Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 – Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type
		② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker
		② DNEL long-term inhalative (systemic)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: red

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	not applicable			
Melting point/freezing point	No data available			
Freezing point	not determined			
Initial boiling point and boiling range	No data available			
Decomposition temperature (°C):	not determined			
Flash point	65 - 67 °C			
Evaporation rate	No data available			
Ignition temperature in °C	not determined			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	No data available			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm³	20 °C		
Bulk density	not determined			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	No data available			
Dynamic viscosity	not determined			
Kinematic viscosity	No data available	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.
Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Accumulation / Evaluation:

There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—

There are no data available on the mixture itself.

12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.
not relevant
14.2. UN proper shipping name
not relevant
14.3. Transport hazard class(es)
not relevant
14.4. Packing group
not relevant
14.5. Environmental hazards
not relevant
14.6. Special precautions for user
not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Additional information:

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

keine Angabe

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

-

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

16.6. Training advice

No data available

16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH

Department Environmental Service

Westendstraße 199

80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :

Roland DG Benelux NV

Manufacturer:

Roland DG Corporation

1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,

Shizuoka-ken, 431-2103

JAPAN

Telefon: + 81-53-484-1224

Telefax: + 81-53-484-1226

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5LK

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

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against -

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.

Other adverse effects:


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concen- tration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	5 – 10 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Consult physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Dry extinguishing powder, Foam

Unsuitable extinguishing media:

High power water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

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6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

6.5. Additional information

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Use only in well-ventilated areas.
Handle and open container with care.
All work processes must always be designed so that the following is as low as possible:
Inhalation, Skin contact, Eye contact
When using do not eat, drink, smoke, sniff.

Fire prevent measures:

Keep away from sources of ignition. - No smoking.
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep only in original container.
Conditions to avoid: Protect from sunlight.
Protect against: Frost, Heat

Hints on storage assembly:

Do not store together with: Oxidising agent

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value
		② short-term occupational exposure limit value
		③ Instantaneous value
		④ Monitoring and observation processes
		⑤ Remark
VLA (FR)	Carbon black CAS No.: 1333-86-4	① 3.5 mg/m ³

8.1.2. biological limit values

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)
Carbon black CAS No.: 1333-86-4	2 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

8.2.2. Personal protection equipment

Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: black

Odour: characteristic

Odour threshold: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	not applicable			
Melting point/freezing point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	No data available			
Decomposition temperature (°C):	not determined			
Flash point	65 - 67 °C			
Evaporation rate	not determined			
Ignition temperature in °C	not determined			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	not determined			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm ³	20 °C		
Bulk density	not determined			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	not determined			

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

parameter		at °C	Method	Remark
Dynamic viscosity	not determined			
Kinematic viscosity	No data available	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Frost, Heat

10.5. Incompatible materials

Oxidising agent, strong.
Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD ₅₀ oral: >29,000 mg/kg (Rat) LD ₅₀ dermal: >2,000 ml/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the mixture itself.

Eye damage/irritation:

There are no data available on the mixture itself.

Respiratory or skin sensitisation:

There are no data available on the mixture itself.

Germ cell mutagenicity:

There are no data available on the mixture itself.

Carcinogenicity:

There are no data available on the mixture itself.

Reproductive toxicity:

There are no data available on the mixture itself.

STOT-single exposure:

There are no data available on the mixture itself.

STOT-repeated exposure:

There are no data available on the mixture itself.

Aspiration hazard:

There are no data available on the mixture itself.

Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Additional information:

Further ecological information: There are no data available on the mixture itself.

12.3. Bioaccumulative potential

Accumulation / Evaluation:

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 03 17 *	waste printing toner containing dangerous substances
------------	--

*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.

not relevant

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Additional information:

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Water hazard class (WGK)

WGK:

1 - schwach wassergefährdend

Source:

Self-classification

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

-

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

16.6. Training advice

No data available

Revision date: 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH
Department Environmental Service
Westendstraße 199
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :
Roland DG Benelux NV

Manufacturer:
Roland DG Corporation
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Shizuoka-ken, 431-2103
JAPAN
Telefon: + 81-53-484-1224
Telefax: + 81-53-484-1226

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:

CLEANING LIQUID, (ESL5) 100 ML

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

Use of the substance/mixture:

Inkjet Printing

Relevant identified uses:

Sector of uses [SU]

SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product Categories [PC]

PC 18: Ink and toners

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Roland DG Benelux NV

Bell-Telephonedlaan 2G

B-2440 Geel

Belgium

Telephone: +32 14 57 59 11

E-mail: info@rolanddg.be

Website: www.rolanddg.be

E-mail (competent person): info@rolanddg.be

E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

2.3. Other hazards

Adverse physicochemical effects:

No special measures are necessary.

Adverse human health effects and symptoms:

No special measures are necessary.

Adverse environmental effects:

No special measures are necessary.

Other adverse effects:

No special measures are necessary.

Revision date: 02-Oct-2015 **Version:** 1 **Print date:** 02-Oct-2015

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

This mixture does not contain any substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air.

After eye contact:

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

After ingestion:

Rinse mouth. Let water be drunken in little sips (dilution effect).

Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

No known symptoms to date.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media:

Strong water jet

5.2. Special hazards arising from the substance or mixture

Combustible

Hazardous combustion products:

Carbon monoxide

Carbon dioxide (CO₂)

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

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

Remove persons to safety.

Protective equipment:

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

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

6.3. Methods and material for containment and cleaning up

For containment:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Water (with cleaning agent)

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8).

Fire prevent measures:

Usual measures for fire prevention.

Keep away from sources of ignition. - No smoking.

Take precautionary measures against static discharges.

Advices on general occupational hygiene

When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

No special measures are necessary.

Requirements for storage rooms and vessels:

No special measures are necessary.

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment

Eye/face protection:

Recommended eye protection articles: Eye glasses with side protection

Skin protection:

Hand protection is not required

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

Further information: see technical data sheet.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid

Colour: colourless

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Odour: characteristic

Odour threshold: not applicable

Safety relevant basis data

parameter		at °C	Method	Remark
pH	not applicable			
Melting point/freezing point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	not determined			
Decomposition temperature (°C):	not determined			
Flash point	71 °C			
Evaporation rate	not determined			
Ignition temperature in °C	not determined			
Upper/lower flammability or explosive limits	> 1.3 - < 9.9 Vol-%			
Vapour pressure	not determined			
Vapour density	> 1			
Density	> 0.9 - < 1.1 g/cm ³	20 °C		
Bulk density	not determined			
Water solubility (g/L)	miscible			
Partition coefficient: n-octanol/ water	not determined			
Dynamic viscosity	not determined			
Kinematic viscosity	not determined			

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Combustible. This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Oxidising agent
Acid, concentrated

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

There are no data available on the preparation/mixture itself.

Acute dermal toxicity:

There are no data available on the preparation/mixture itself.

Acute inhalation toxicity:

There are no data available on the preparation/mixture itself.

Skin corrosion/irritation:

There are no data available on the preparation/mixture itself.

Eye damage/irritation:

There are no data available on the preparation/mixture itself.

Respiratory or skin sensitisation:

not sensitising.

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Germ cell mutagenicity:

No experimental indications of in vivo mutagenicity exist.

Carcinogenicity:

No indication of human carcinogenicity.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

STOT-single exposure:

There are no data available on the preparation/mixture itself.

STOT-repeated exposure:

There are no data available on the preparation/mixture itself.

Aspiration hazard:

not applicable

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the preparation/mixture itself.

12.2. Persistence and degradability

Biodegradation:

There are no data available on the preparation/mixture itself.

12.3. Bioaccumulative potential

Accumulation / Evaluation:

There are no data available on the preparation/mixture itself.

12.4. Mobility in soil

There are no data available on the preparation/mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

There are no data available on the preparation/mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 01 99	wastes from MFSU and removal of paint and varnish: Wastes not otherwise specified
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Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

13.2. Additional information

No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.

not relevant

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

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14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Water hazard class (WGK)

WGK:

nwg - nicht wassergefährdend

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

No data available

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

No data available

16.6. Training advice

No data available

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16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

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