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

ECO-SOL MAX, ESL3-YE/ESL3-4YE

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
Restricted to professional users.
Uses advised against -

1.3. Details of the supplier of the safety data sheet

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

Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi
431-2103 Shizuoka-ken, JAPAN
Telephone: +81-53-484-1224
Telefax: +81-53-484-1226
E-mail: info@rolanddg.be
Website: www.rolanddg.be
E-mail (competent person): info@rolanddg.be

1.4. Emergency telephone number

Supplier - Importer (EU) Roland DG Benelux N.V. Houtstraat 3, B-2260 - Westerlo, Belgium , 24h: +49 228 19240 Antipoison Center Bonn , +32 14 575 911 (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]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	
Reproductive toxicity *(Repr. 1B)*	H360: May damage fertility or the unborn child.	

Classification according to Directive 67/548/EEC or 1999/45/EC:

Irritating to skin. Risk of serious damage to eyes. May cause harm to the unborn child. Possible risk of impaired fertility.

2.2. Label elements

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

Hazard pictograms:

GHS08
Health hazard

GHS05
Corrosion

Signal word: Danger

Hazard components for labelling:

Tetraethylene glycol dimethyl ether, gamma-butyrolactone

hazard statements for health hazards	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H360	May damage fertility or the unborn child.

Precautionary statements Response	
P302 + P352.1	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P362	Take off contaminated clothing.

Labelling (67/548/EEC or 1999/45/EC)

Hazard pictograms:

T
Toxic

Hazard statements	
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R61	May cause harm to the unborn child.
R62	Possible risk of impaired fertility.

Hazard components for labelling:
Tetraethylene glycol dimethyl ether

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.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:
The product is a mixture of non-hazardous and the following hazardous substances

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to 67/548/EEC Classification according to Regulation (EC) No. 1272/2008 [CLP]	Concentration
CAS No.: 112-36-7 **EC No.:** 203-963-7 **REACH No.:** 01-211996-9946-13-0000	**bis(2-ethoxyethyl) ether** Skin Irrit. 2 **Warning** H315 Xi; R38	55 – 65 Wt %
CAS No.: 96-48-0 **EC No.:** 202-509-5	**?-butyrolactone** Eye Dam. 1, STOT SE 3, Acute Tox. 4 **Danger** H302-H318-H336 Xn; R22 — Xi; R41 — R67	< 20 Wt %
CAS No.: 143-24-8 **EC No.:** 205-594-7	**bis(2-(2-methoxyethoxy)ethyl) ether** Repr. 1B **Danger** H360 Repr. Cat. Entw. 2; R61 — Repr. Cat. Fruchtb. 3; R62	10 – 20 Wt %

Full text of R-, 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:
Water spray, Carbon dioxide (CO2), Foam, Dry extinguishing powder

5.2. Special hazards arising from the substance or mixture
— No data available —

5.3. Advice for firefighters
Wear full chemical protective clothing. Use appropriate respiratory protection.

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:
See protective measures under point 7 and 8.
Provide adequate ventilation.

6.1.2. For emergency responders
— No data available —

6.2. Environmental precautions
Do not allow to enter into surface water or drains.
Treat the recovered material as prescribed in the section on waste disposal.

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).

6.4. Reference to other sections
Disposal: see section 13
Personal protection equipment: see section 8

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.
Open and handle 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

Requirements for storage rooms and vessels:
Keep/Store only in original container. Conditions to avoid: High and freezing temperatures. Protect from sunlight.

Hints on storage assembly:
Do not store together with: Oxidising agent
Materials to avoid: Metal, Oxidising agent, Amines

Storage class: 10

7.3. Specific end use(s)

Recommendation:
Inkjet Printing

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

— No data available —

8.2. Exposure controls

8.2.1. Appropriate engineering controls

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

8.2.2. Personal protection equipment

Eye/face protection:
Eye protection: not required. In case of suitable use

Skin protection:
Hand protection: not required. In case of suitable use

Respiratory protection:
Respiratory protection necessary at: insufficient ventilation, insufficient exhaust. Filtering device (full mask or mouthpiece) with filter: with organic vapor cartridge

Other protection measures:
Body protection: not required. In case of suitable use
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

DNEL: Workers - hazard via inhalation route
Tetraethylene glycol dimethyl ether (CAS 143-24-8): Long term term exposure: 22 mg/m3
gamma-butyrolactone (CAS96-48-0): Long term term exposure: 130 mg/m3; short term term exposure: 958 mg/m3

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid **Colour:** yellow
Odour: slightly

Safety relevant basis data

		at °C	Method	remark
pH	*not determined*		No data available	
Melting point/freezing point	*not determined*		No data available	
Freezing point	*not determined*			
Initial boiling point and boiling range	*not determined*		No data available	
Decomposition temperature (°C):	*not determined*			
Flash point	71 °C		DIN 51755 part 1	
Evaporation rate	*not determined*			
Ignition temperature in °C	*not determined*			

		at °C	Method	remark
Upper/lower flammability or explosive limits	0.3 – 16 Vol-%		as gamma-Butyrolactone	
Vapour pressure	*not determined*		No data available	
Vapour density	*not determined*			
Density	*not determined*		No data available	
Bulk density	*not determined*			
Water solubility (g/L)	*not determined*			
Partition coefficient: n-octanol/water	*not determined*		No data available	
Dynamic viscosity	*not determined*		No data available	
Kinematic viscosity	*not determined*			

9.2. Other information
Water solubility: soluble
Flammability (solid/gas): not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
Stable under normal temperature (20°C, 1013 Pa)

10.3. Possibility of hazardous reactions
No hazardous reactions known.

10.4. Conditions to avoid
High and freezing temperatures

10.5. Incompatible materials
Oxidizers and explosives

10.6. Hazardous decomposition products
No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute oral toxicity:
LD50: > 2500 mg/kg (Rat)*

Acute dermal toxicity:
LD50: > 2000 mg/kg (Rat)*

Acute inhalation toxicity:
LC50: No data available.

Skin corrosion/irritation:
Irritant effect on the skin: slightly irritant (Methode: Rabbit OECD 404)*

Eye damage/irritation:
Irritant effect on the eye: Causes serious eye damage. (Methode: Rabbit OECD 405)*

Respiratory or skin sensitisation:
not sensitising. (LLNA, OECD 429)*

Germ cell mutagenicity:
In vitro mutagenicity: Ames test negative.*

Carcinogenicity:
The product contains titanium dioxide. Titanium dioxide is classified in category 3A by the MAK-Commission

Reproductive toxicity:
May cause harm to the unborn child. Possible risk of impaired fertility. (Tetraethylene glycol dimethyl ether)

STOT-single exposure:
No information available.

STOT-repeated exposure:
No information available.

Additional information:
Specific symptoms in animal studies: There are no data available on the preparation/mixture itself.
Other information: * Based on toxicology data of chemically similar material.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:
No information available.

Terrestrial toxicity:
No information available.

Effects in sewage plants:
No information available.

12.2. Persistence and degradability

Additional information:
Further ecological information: No information available.

12.3. Bioaccumulative potential

Accumulation / Evaluation:
No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

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: Do not allow to enter into surface water or drains.

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 code packaging:

15 01 10	packaging containing residues of or contaminated by dangerous substances

13.2. Additional information

— No data available —

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

14.1. UN-No.

— No data available —

14.2. UN proper shipping name

— No data available —

14.3. Transport hazard class(es)

— No data available —

14.4. Packing group

— No data available —

14.5. Environmental hazards

— No data available —

14.6. Special precautions for user

— No data available —

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

— No data available —

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

— No data available —

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

2.1. Classification of the substance or mixture
2.2. Label elements
3.2. Mixtures
8.1 Control parameters
8.2 Exposure controls
11.1. Information on toxicological effects

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures
Commission Regulation (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008
Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations
Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
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16.4. Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	
Reproductive toxicity *(Repr. 1B)*	H360: May damage fertility or the unborn child.	

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

Hazard statements (R-phrases)	
R22	Harmful if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R61	May cause harm to the unborn child.
R62	Possible risk of impaired fertility.
R67	Vapours may cause drowsiness and dizziness.

Hazard statements	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child.

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
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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.
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