

Revision date: 25-Mar-2014 Version: 3 Print date: 31-Jul-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 MAX, ESL3-CY/ESL3-4CY

#### 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 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: +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.)

### 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 ( <i>Skin Irrit. 2</i> )	H315: Causes skin irritation.	
Serious eye damage/eye irritation ( <i>Eye Dam. 1</i> )	H318: Causes serious eye damage.	
Reproductive toxicity ( <i>Repr. 1B</i> )	H360: May damage fertility or the unborn child.	

#### 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:

bis(2-(2-methoxyethoxy)ethyl) ether; ?-butyrolactone

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

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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.

### 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

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Concentration
CAS No.: 112-36-7 EC No.: 203-963-7 REACH No.: 01-2119969946-13-0000	<b>bis(2-ethoxyethyl) ether</b> Skin Irrit. 2  <b>Warning</b> H315	55 - 65 Wt %
CAS No.: 96-48-0 EC No.: 202-509-5	<b>?-butyrolactone</b> Eye Dam. 1, STOT SE 3, Acute Tox. 4   <b>Danger</b> H302-H318-H336	< 20 Wt %
CAS No.: 143-24-8 EC No.: 205-594-7	<b>bis(2-(2-methoxyethoxy)ethyl) ether</b> Repr. 1B  <b>Danger</b> H360	10 - 20 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

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

Water spray, Carbon dioxide (CO<sub>2</sub>), 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.

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

#### 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

Materials to avoid: Metal, Oxidising agent, Amines

**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

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## 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
bis(2-(2-methoxyethoxy)ethyl) ether CAS No.: 143-24-8	22 mg/m <sup>3</sup>	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.

##### Skin protection:

Hand protection: not required.

##### 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 determined</i>		No data available	
Melting point/freezing point	<i>not determined</i>		No data available	
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>not determined</i>		No data available	
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	71 °C			
Evaporation rate	<i>not determined</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	0.3 - 16 Vol-%			estimated
Vapour pressure	<i>not determined</i>		No data available	
Vapour density	<i>not determined</i>			
Density	<i>not determined</i>		No data available	
Bulk density	<i>not determined</i>			

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

## 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

### 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
96-48-0	?-butyrolactone	<b>LD<sub>50</sub> oral:</b> =1,582 mg/kg (Rat) <b>LC<sub>50</sub> inhalative:</b> >5.1 ppmV 4 h
143-24-8	bis(2-(2-methoxyethoxy)ethyl) ether	<b>LD<sub>50</sub> oral:</b> =3,850 mg/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:

Irritant effect on the skin: Not an irritant. (Methode: Rabbit OECD 404)\*

#### Eye damage/irritation:

Irritant effect on the eye: Not an irritant. (Methode: Rabbit OECD 405)\*

#### Respiratory or skin sensitisation:

not sensitising. (LLNA, OECD 429)\*

#### Germ cell mutagenicity:

In vitro mutagenicity: Ames test negative.\*

#### Carcinogenicity:

No indication of human carcinogenicity.

#### Reproductive toxicity:

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

#### 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:

Based on available data, the classification criteria are not met.

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**Additional information:**

Specific symptoms in animal studies: There are no data available on the preparation/mixture itself.  
Other information: \*By analogy.

**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**

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: 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
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\*: Evidence for disposal must be provided.

**Waste code packaging:**

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

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**

No data available

**16.2. Abbreviations and acronyms**

See overview table at [www.euphrac.eu](http://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) 1272/2008 [CLP]**

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

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

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

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.

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### **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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