

# Safety Data Sheet

According to Regulation(EC) No. 453/2010

SDS1208080003

Issue data : 2012-08-10

Version:1.0

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

### 1.1. Product identifier

|                                |                   |
|--------------------------------|-------------------|
| Trade name:                    | E-Liquid          |
| Proper shipping name:          | No data available |
| Other means of identification: | No data available |

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

#### 1.2.1. Relevant identified uses

USING FOR ELECTRONIC CIGARETTE.

#### 1.2.2. Uses advised against

Advice against other uses

### 1.3. Details of the supplier of the safety data sheet

|            |  |
|------------|--|
| Supplier:  | Ritchy Group Limited.  |
| Address:   | Room 805, Beverly House, 93-107 Lockhart Road, Wanchai, Hong Kong. |
| Telephone: | 852 2520 0826  |
| Fax:       | 852 2520 0079  |
| E-mail:    | info@goritchy.com  |

|            |  |
|------------|--|
| Importer:  |  |
| Address:   |  |
| Telephone: |  |
| Fax:       |  |
| Email:     |  |

### 1.4. Emergency telephone number

| Country | Advisory body | Address | Emergency number |
|---------|---------------|---------|------------------|
|         |               |         |                  |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

| Classification | Category | Exposure Route |
|----------------|----------|----------------|
| Acute toxicity | 2        | -              |

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

| Risk codes | Risk phrases                     |
|------------|----------------------------------|
| R27        | Very toxic in contact with skin. |

### Other adverse physicochemical, human health and environmental effects

No reliable data available.

### 2.2. Label elements

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

Hazard pictogram:



|              |        |
|--------------|--------|
| Signal word: | Danger |
|--------------|--------|

|                    |                                   |
|--------------------|-----------------------------------|
| Hazard Statements: | H310: Fatal in contact with skin. |
|--------------------|-----------------------------------|

Precautionary Statements:

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|             |   |
|-------------|---|
| Prevention: | P262: Do not get in eyes, on skin, or on clothing.<br>P264: Wash thoroughly after handling.<br>P270: Do not eat, drink or smoke when using this product.<br>P280: Wear protective gloves/protective clothing/eye protection/face protection.  |
| Response:   | P302+350: IF ON SKIN: Gently wash with plenty of soap and water.<br>P310: Immediately call a POISON CENTER or doctor/physician.<br>P361: Remove/Take off immediately contaminated clothing and skin with plenty of water before removing clothes.<br>P363: Wash contaminated clothing before reuse. |
| Storage:    | P405: Store locked up.  |
| Disposal:   | P501 Dispose of contents/container in accordance with local/regional/national/international regulation.   |

## 2.3. Other hazards

No reliable data available.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name               | CAS No.   | EC No.    | Index No.    | REACH No. | % wt/wt | Classification according to CLP   | Classification according to DSD |
|--------------------|-----------|-----------|--------------|-----------|---------|---|---------------------------------|
| Propylene Glycol   | 57-55-6   | 200-338-0 | -            | -         | 75      | Not classified  | Not classified                  |
| Vegetable Glycerol | 56-81-5   | 200-289-5 | -            | -         | 19.8    | Not classified  | Not classified                  |
| FoodFlavor         | 8037-19-2 | -         | -            | -         | 4       | Acute toxicity category 1;H310<br>Acute toxicity category 4;H302<br>Aquatic Chronic category 3;H412 | T+; R27<br>Xn; R22<br>R52-53    |
| Nicotine           | 54-11-5   | 200-193-3 | 614-001-00-4 | -         | 1.2     | Acute toxicity category 1;H310<br>Acute toxicity category 3;H301<br>Aquatic Chronic category 2;H411 | T+; R27<br>T; R25<br>N; R51-53  |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:** Move victim to fresh air. If not breathing, give artificial respiration. Get medical attention.

**Skin contact:** Immediately wash with plenty of soap and water. Get medical attention if irritation occurs.

**Eye contact:** Immediately flush eyes with running water for at least 20 minutes holding eyelids open. Get medical attention.

**Ingestion:** Do not induce vomiting. Give 1-2 glasses of water to a conscious victim. Never give anything by mouth to an unconscious victim. Get medical attention.

**Advice for the doctor:** Symptomatic treatment.

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

Fatal in contact with skin.

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

No reliable data available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

Foam.

Dry chemical powder.

Carbon dioxide.

BCF(Where regulations permit)

### 5.2. Special hazards arising from the substance or mixture

Fire/explosion hazard: Emits toxic fumes under fire conditions.

Main combustion gas: carbon monoxide and carbon dioxide gases.

### 5.3. Advice for firefighters

Alert Fire Brigade and tell them location and nature of hazard.

Wear breathing apparatus plus protective gloves.

Prevent, by any means available, spillage from entering drains or water courses.

Use water delivered as a fine spray to control fire and cool adjacent area.

DO NOT approach containers suspected to be hot.

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Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Wear suitable protective equipment.

#### 6.1.2. For emergency responders

Remove ignition sources and provision of sufficient ventilation, evacuate the danger area and consult experts.

### 6.2. Environmental precautions

Take precautions to prevent entry into waterways, sewers, or surface drainage systems. Dispose according to local or international regulations.

### 6.3. Methods and material for containment and cleaning up

Use appropriate tools to put the spilled solid in suitable container for recovery or disposal, avoid splashing.

### 6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the MSDS

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid ingestion, inhalation, skin and eye contact. Minimize spill and splashing. Handle in accordance with good industrial hygiene practice and any legal requirements.

### 7.2. Conditions for safe storage, including any incompatibilities

Suitable container: Lined metal can. Lined metal drum. Lined metal safety cans.

Storage incompatibility: Avoid reaction with oxidizing agents.

### 7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

|           |   |  |  |  |
|-----------|---|--|--|--|
| Substance | Propane-1,2-diol, total vapour & particulates |  |  |  |
| CAS No.   | 57-55-6                                       |  |  |  |

|                  | Limit value - Eight hours |                   | Limit value - Short term |                   |
|------------------|---------------------------|-------------------|--------------------------|-------------------|
|                  | ppm                       | mg/m <sup>3</sup> | ppm                      | mg/m <sup>3</sup> |
| Australia        | 150                       | 474               |                          |                   |
| Canada - Ontario | 50                        | 155               |                          |                   |
| New Zealand      | 150 (1)                   | 474               |                          |                   |
|                  |                           | 10 (1)            |                          |                   |
| United Kingdom   | 150                       | 474               |                          |                   |

|           |                |  |  |  |
|-----------|----------------|--|--|--|
| Substance | Glycerol, mist |  |  |  |
| CAS No.   | 56-81-5        |  |  |  |

|           | Limit value - Eight hours |                   | Limit value - Short term |                   |
|-----------|---------------------------|-------------------|--------------------------|-------------------|
|           | ppm                       | mg/m <sup>3</sup> | ppm                      | mg/m <sup>3</sup> |
| Australia |                           | 10 (1)            |                          |                   |
| Austria   |                           |                   |                          |                   |
| Belgium   |                           | 10                |                          |                   |

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|                  |                      |                       |
|------------------|----------------------|-----------------------|
| Canada - Ontario | 10                   |                       |
| Canada - Québec  | 10                   |                       |
| France           | 10                   |                       |
| Germany (AGS)    |                      |                       |
| Germany (DFG)    | 50 inhalable aerosol | 100 inhalable aerosol |
| New Zealand      | 10 (1)               |                       |
| Poland           | 10                   |                       |
| Singapore        | 10                   |                       |
| Spain            | 10                   |                       |
| Sweden           |                      |                       |
| Switzerland      | 50 inhalable aerosol | 100 inhalable aerosol |
| USA - OSHA       | 15 inhalable dust    |                       |
|                  | 5 respirable dust    |                       |
| United Kingdom   | 10                   |                       |

|           |          |
|-----------|----------|
| Substance | Nicotine |
| CAS No.   | 54-11-5  |

|  |                           |                          |
|--|---------------------------|--------------------------|
|  | Limit value - Eight hours | Limit value - Short term |
|--|---------------------------|--------------------------|

|                  | ppm  | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
|------------------|------|-------------------|------|-------------------|
| Australia        |      | 0,5               |      |                   |
| Austria          | 0,07 | 0,5               | 0,28 | 2                 |
| Belgium          |      | 0,5               |      |                   |
| Canada - Ontario |      | 0,5               |      |                   |
| Canada - Québec  |      | 0,5               |      |                   |
| Denmark          |      | 0,5               |      | 1                 |
| European Union   |      | 0,5               |      |                   |
| France           |      | 0,5               |      |                   |
| Germany (AGS)    |      | 0,5               |      | 1 (1)             |
| Germany (DFG)    |      |                   |      |                   |
| Hungary          |      | 0,5               |      |                   |
| Italy            |      | 0,5               |      |                   |
| Japan            |      |                   |      |                   |
| New Zealand      |      | 0,5               |      |                   |
| Poland           |      | 0,5               |      |                   |
| Singapore        |      | 0,5               |      |                   |
| Spain            |      | 0,5               |      |                   |
| Sweden           |      |                   |      |                   |
| Switzerland      | 0,07 | 0,5               | 0,14 | 1                 |
| The Netherlands  |      | 0,5               |      |                   |
| USA - NIOSH      |      | 0,5               |      |                   |
| USA - OSHA       |      | 0,5               |      |                   |

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United Kingdom

0,5

1,5

## 8.2. Exposure controls

Appropriate engineering controls Use: process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

General Personal Protection: Safety goggles or face shield, protective chemical resistant gloves, protective clothing.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |                   |
|---|-------------------|
| Physical state:                         | Liquid            |
| Colour:                                 | No data available |
| Odour:                                  | No data available |
| Oduour threshold                        | No data available |
| pH:                                     | No data available |
| Melting point:                          | No data available |
| Boiling point:                          | No data available |
| Flash point:                            | No data available |
| Evapotation rate:                       | No data available |
| Flammability:                           | No data available |
| Explosive limits:                       | No data available |
| Vapour pressure:                        | No data available |
| Relative density:                       | No data available |
| Solubility(ies):                        | No data available |
| Partition coefficient: n-octanol/water: | No data available |
| Auto/self-ignition temperature:         | No data available |
| Viscosity:                              | No data available |
| Explosive properties:                   | No data available |
| Oxidising properties:                   | No data available |

### 9.2. Other information

No additional data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

See section 7.2

### 10.2. Chemical stability

Stable under normal condition.

### 10.3. Possibility of hazardous reactions

See section 7.2

### 10.4. Conditions to avoid

Strong acid, alkali and oxidizing agents.

### 10.5. Incompatible materials

See section 7.2

### 10.6. Hazardous decomposition products

Thermal decomposition products: carbon monoxide and carbon dioxide gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                            |  |
|----------------------------|--|
| Acute toxicity:            | Propylene Glycol:<br>LD <sub>50</sub> (Oral, Rat): 22000 mg/kg bw<br>LD <sub>50</sub> (Dermal, rabbit): > 2000 mg/kg bw<br>Vegetable Glycerol:<br>LD <sub>50</sub> (Oral, Rat): 27 mg/kg bw;<br>L(Ct) <sub>50</sub> (inhalation, Rat): 4655 mg-min/liter<br>LD <sub>50</sub> (dermal, guinea pig): 45 mL/kg bw |
| Skin corrosion/irritation: | Propylene Glycol:<br>Skin irritation: not irritating (OECD TG 404)<br>Vegetable Glycerol:<br>Skin irritation: not irritating   |

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|   |  |
|---|--|
| Serious eye damage/irritation:                      | Propylene Glycol:<br>Eye irritation: not irritating<br>Vegetable Glycerol:<br>Eye irritation: not irritating           |
| Respiratory or skin sensitisation:                  | Propylene Glycol:<br>Skin sensitisation: not sensitising<br>Vegetable Glycerol:<br>Skin sensitisation: not sensitising |
| Germ cell mutagenicity:                             | Propylene Glycol:<br>Negative<br>Vegetable Glycerol:<br>Negative   |
| Carcinogenicity:                                    | Propylene Glycol:<br>NOAEL: 1700 mg/kg bw/day  |
| Reproductive toxicity:                              | No data available  |
| Specific target organ toxicity (single exposure):   | No data available  |
| Specific target organ toxicity (repeated exposure): | No data available  |
| Aspiration hazard:                                  | No data available  |

## SECTION 12: Ecological information

### 12.1. Toxicity

Acute (short-term) toxicity:

Propylene Glycol:

Fish (Oncorhynchus mykiss, 96h): LC<sub>50</sub>: 40613 mg/L

Crustacea (Ceriodaphnia dubia, 48h): LC<sub>50</sub>: 18340 mg/L

Toxicity to microorganisms (Skeletonema costatum, 72h): EC<sub>50</sub>: 19300 mg/L (OECD TG 201)

Vegetable Glycerol:

Fish (Oncorhynchus mykiss, 96h): LC<sub>50</sub>: 54000 mg/L

Crustacea (Daphnia magna, 48h): LC<sub>50</sub>: 1955 mg/L

Aquatic algae and cyanobacteria (Scenedesmus quadricauda, 8d): EC<sub>3</sub>: > 10000 mg/L

### 12.2. Persistence and degradability

Propylene Glycol:

Abiotic Degradation: No data available

Physical- and photo-chemical elimination: No data available

Biodegradation: readily biodegradable

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product disposal: Observe specific national regulation.

Contaminated packaging: Contaminated, empty containers must be disposed of as chemical waste.

## SECTION 14: Transport information

### Land transport (ADR / RID / GGVSE)

|                                 |                   |                                    |                   |
|---------------------------------|-------------------|------------------------------------|-------------------|
| 14.1 UN number                  | No data available | 14.4 Packing group                 | No data available |
| 14.2 UN proper shipping name    | No data available | 14.5 Environmental hazard          | No data available |
| 14.3 Transport hazard class(es) | No data available | 14.6. Special precautions for user | No data available |

### Air transport (ICAO-IATA / DGR)

|                                 |                   |                                   |                   |
|---------------------------------|-------------------|-----------------------------------|-------------------|
| 14.1 UN number                  | No data available | 14.4 Packing group                | No data available |
| 14.2 UN proper shipping name    | No data available | 14.5 Environmental hazard         | No relevant data  |
|                                 |                   | 14.6 Special precautions for user | No data available |
| 14.3 Transport hazard class(es) | No data available |                                   |                   |

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## Sea transport (IMDG-Code / GGVSee)

|                                 |                   |                                   |                   |
|---------------------------------|-------------------|-----------------------------------|-------------------|
| 14.1 UN number                  | No data available | 14.4 Packing group                | No data available |
| 14.2 UN proper shipping name    | No data available | 14.5 Environmental hazard         | No data available |
| 14.3 Transport hazard class(es) | No data available | 14.6 Special precautions for user | No data available |

## Inland waterways transport (ADNR/River Rhine)

|                                 |                   |                                   |                   |
|---------------------------------|-------------------|-----------------------------------|-------------------|
| 14.1 UN number                  | No data available | 14.4 Packing group                | No data available |
| 14.2 UN proper shipping name    | No data available | 14.5 Environmental hazard         | No data available |
| 14.3 Transport hazard class(es) | 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

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - 67/548/EEC, 1999/45/EC, Regulation (EC) No 1272/2008, Regulation (EC) No. 453/2010; Regulation (EC) No 1907/2006, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC and 1999/13/EC.

#### 15.1.2. International/National regulations

No data available.

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

## SECTION 16: Other information

### 16.1 Indication of changes

No data available

### 16.2 Key literature references and sources for data

ESIS (European chemical Substances Information System), <http://esis.jrc.ec.europa.eu/>

- REACH registered chemicals, [http://echa.europa.eu/chem\\_data\\_en.asp](http://echa.europa.eu/chem_data_en.asp)

- IFA GESTIS - International limit values for chemical agents - occupational exposure limits (OELs), [http://www.dguv.de/ifa/en/gestis/limit\\_values/index.jsp](http://www.dguv.de/ifa/en/gestis/limit_values/index.jsp)

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*