

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**

- **Trade name:** ELECTRONIC CIGARETTE LIQUID

- **Registration number:** Not available

- **Application of the substance / the preparation:** E-CIGARETTE ATOMIZED CARTRIDGES

- **Manufacturer/Supplier:**

CHANGNING DEKANG BIOTECHNOLOGY CO., LTD.

LEVEL 2 LINJIE BUILDING SHILICHANG STREET XISHAN DISTRICT KUNMING CITY P.R.C

Tel:86-755-61532206 Ext. 608

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- **Further information obtainable from:** CHANGNING DEKANG BIOTECHNOLOGY CO., LTD.

- **Information in case of emergency:**

YAO JIDE

MP: 86-15889526318

- **Email:** yndk\_168@yahoo.com.cn

- **Reference Number:** GZHGR2009006903; GZ0903023882/CHEM

## 2 Hazards identification

- **Hazard description:**



F Highly flammable

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 11 Highly flammable.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

## 3 Composition/information on ingredients









- **Chemical characterization**

- **Description:**

Mixture of the substances listed below with nonhazardous additions.

For the wording of listed risk phrases refer to section 16.

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6 EU number: 603-002-00-5	ethanol  F; R 11	10,0%
CAS: 6915-15-7 EINECS: 230-022-8	malic acid  Xi; R 36/38	3,0%
CAS: 80-71-7 EINECS: 201-303-2	2-hydroxy-3-methylcyclopent-2-enone  Xn; R 22	2,5%
CAS: 1124-11-4 EINECS: 214-391-2	2,3,5,6-tetramethylpyrazine  Xn; R 22	1,5%
CAS: 22047-25-2 EINECS: 244-753-5	pyrazin-1-ylethan-1-one  Xi; R 36/37/38	1,5%
CAS: 89-78-1 EINECS: 201-939-0	menthol  Xn; R 22	1,0%
CAS: 116-53-0 EINECS: 204-145-2	2-methylbutyric acid  C,  Xn; R 22-34	0,5%

(Contd. on page 2)

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

**Trade name: ELECTRONIC CIGARETTE LIQUID**

(Contd. of page 1)

CAS: 14667-55-1 EINECS: 238-712-0	2,3,5-trimethylpyrazine ☒ Xn, ☒ Xi; R 10-22-36/37/38	0,3%
CAS: 23696-85-7 EINECS: 245-833-2	Damascenone ☒ F; R 11	0,2%
CAS: 1122-62-9 EINECS: 214-355-6	methyl 2-pyridyl ketone ☒ Xi; R 38	0,2%

**· Non-dangerous components:**

CAS: 25322-68-3 NLP: 500-038-2	Polyethylene glycol	73,3%
CAS: 7374-79-0	Eleutheroside E1	5,7%
CAS: 6812-78-8 EINECS: 229-887-4	rhodinol	0,3%

**· Remark:**

2-Hydroxy-3-methylcyclopent-2-enone(CAS No.: 80-71-7)  
Synonym: 3-Methylcyclopentane-1,2-dione

pyrazin-1-ylethan-1-one(CAS No.: 22047-25-2)  
Synonym: Acetylpyrazine

methyl 2-pyridyl ketone(CAS No.: 1122-62-9)  
Synonym: 2-Acetylpyridine

**4 First aid measures**

- **General information:** Seek medical treatment.
- **After inhalation:** Supply fresh air or oxygen; call for doctor.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Seek medical treatment.

**5 Fire-fighting measures**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Wear fully protective suit.

**6 Accidental release measures**

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or any water source.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Additional information:** See Section 7 for information on safe handling.

**7 Handling and storage**

- **Handling**
- **Information for safe handling:**  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.

(Contd. on page 3)

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

**Trade name: ELECTRONIC CIGARETTE LIQUID**

(Contd. of page 2)

- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**  
Store away from oxidizing agents.  
Do not store together with textiles.  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.

**8 Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

**25322-68-3 Polyethylene glycol**WEEL (USA) 10 mg/m<sup>3</sup>**64-17-5 ethanol**

PEL (USA)	1900 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	1900 mg/m <sup>3</sup> , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m <sup>3</sup> , NIC-1000 ppm Long-term value: 1880 mg/m <sup>3</sup> , 1000 ppm NIC-A3
WEL (Great Britain)	1920 mg/m <sup>3</sup> , 1000 ppm

- **DNELs:** Not available
- **PNECs:** Not available
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves:**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material:**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

EU

(Contd. on page 4)

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

Trade name: **ELECTRONIC CIGARETTE LIQUID**

(Contd. of page 3)

**9 Physical and chemical properties**· **General Information**

<b>Form:</b>	Liquid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Fruits/sweet

· **Change in condition**

<b>Melting point/Melting range:</b>	Not available
<b>Boiling point/Boiling range:</b>	Not available

· **Flash point:** Not available· **Flammability (solid, gaseous):** Not available· **Ignition temperature:** Not available· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.· **Explosion limits:**

<b>Lower:</b>	Not available
<b>Upper:</b>	Not available

· **Oxidizing properties** Not available· **Vapour pressure:** Not available· **Density:** Not available· **Relative density** Not available· **Vapour density** Not available· **Evaporation rate** Not available· **Solubility in / Miscibility with water:** Not available· **pH-value:** Not available· **Segregation coefficient (n-octanol/water):** Not available.· **Viscosity:****Dynamic:** Not available.**10 Stability and reactivity**· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **Dangerous reactions:** No dangerous reactions known.· **Dangerous decomposition products:** No dangerous decomposition products known.**11 Toxicological information**· **Acute toxicity**· **LD/LC50 values relevant for classification:****89-78-1 menthol**

Oral LD50 3180 mg/kg (rat)

**80-71-7 2-hydroxy-3-methylcyclopent-2-enone**

Oral LD50 1400 mg/kg (guinea pig)

**6915-15-7 malic acid**

Oral LD50 1600 mL/kg (mouse)

(Contd. on page 5)

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

Trade name: **ELECTRONIC CIGARETTE LIQUID**

(Contd. of page 4)

<b>1124-11-4 2,3,5,6-tetramethylpyrazine</b>		
Oral	LD50	1910 mL/kg (rat)
<b>14667-55-1 2,3,5-trimethylpyrazine</b>		
Oral	LD50	806 mg/kg (rat)
<b>1122-62-9 methyl 2-pyridyl ketone</b>		
Oral	LD50	2280 mg/kg (rat)
<b>64-17-5 ethanol</b>		
Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)
<b>6812-78-8 rhodinol</b>		
Oral	LD50	5000 mg/kg (rat)
		3600 mg/kg (rabbit)
<b>116-53-0 2-methylbutyric acid</b>		
Oral	LD50	1,87 mL/kg (rat)
<b>25322-68-3 Polyethylene glycol</b>		
Oral	LD50	15700 mg/kg (guinea pig)
		28915 mg/kg (mouse)

- **Primary irritant effect**
- **on the skin:** Irritating effect possible.
- **on the eye:** Irritating effect possible.
- **Sensitization:** Sensitization possible.
- **Toxicokinetics, metabolism and distribution:** Not available
- **Acute effects (acute toxicity, irritation and corrosivity):** Not available
- **Repeated dose toxicity:** Not available
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** Not available

**12 Ecological information**

- **Information about elimination (persistence and degradability):** Not available
- **Behaviour in environmental systems**
- **Mobility and bioaccumulation potential:** Not available
- **Ecotoxicological effects**
- **Aquatic toxicity:** Not available
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **PBT assessments:** Not available

**13 Disposal considerations**

- **Product**
- **Recommendation:**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

EU

(Contd. on page 6)

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

Trade name: ELECTRONIC CIGARETTE LIQUID

(Contd. of page 5)

**14 Transport information**

## · Land transport ADR/RID (cross-border)



- ADR/RID class: 3 Flammable liquids.
- Danger code (Kemler): 33
- UN-Number: 1993
- Packaging group: II
- Hazard label: 3
- Description of goods: 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL))
- Limited quantities (LQ): LQ4
- Transport category: 2
- Tunnel restriction code: D1E

## · Maritime transport IMDG



- IMDG Class: 3
- UN Number: 1993
- Label: 3
- Packaging group: II
- EMS Number: F-E,S-E
- Marine pollutant: Yes
- Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL))

## · Air transport ICAO-TI and IATA-DGR



- ICAO/IATA Class: 3
- UN/ID Number: 1993
- Label: 3
- Packaging group: II
- Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ETHANOL)

**15 Regulatory information**

## · Sara

## · Section 335 (extremely hazardous substances):

None of the ingredients is listed.

## · Section 313 (specific toxic chemical listings):

None of the ingredients is listed.

## · TSCA (Toxic Substances Control Act):

25322-68-3	Polyethylene glycol
64-17-5	ethanol
6915-15-7	malic acid
80-71-7	2-hydroxy-3-methylcyclopent-2-enone
1124-11-4	2,3,5,6-tetramethylpyrazine
22047-25-2	pyrazin-1-ylethan-1-one

(Contd. on page 7)

## Safety Data Sheet

Printing date 02.04.2009

Revision: 23.03.2009

Trade name: **ELECTRONIC CIGARETTE LIQUID**

(Contd. of page 6)

89-78-1	menthol
116-53-0	2-methylbutyric acid
14667-55-1	2,3,5-trimethylpyrazine
6812-78-8	rhodinol
23696-85-7	Damascenone
1122-62-9	methyl 2-pyridyl ketone

· **Proposition 65**· **Chemical known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

64-17-5 ethanol

· **Carcinogenicity categories**· **EPA(Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC(International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP(National toxicology Program)**

None of the ingredients is listed.

· **TLV(Threshold Limit Value established by ACGIH)**

64-17-5 ethanol

A4

· **NIOSH-Ca(National Institution for Occupational Safety & Health )**

None of the ingredients is listed.

· **OSHA-Ca(Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

F Highly flammable

· **Risk phrases:**

11 Highly flammable.

· **Safety phrases:**

2 Keep out of the reach of children.

7/9 Keep container tightly closed and in a well-ventilated place.

29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

46 If swallowed, seek medical advice immediately and show this container or label.

**16 Other information**· **Relevant R-phrases**

10 Flammable.

(Contd. on page 8)

**Safety Data Sheet**

Printing date 02.04.2009

Revision: 23.03.2009

**Trade name: ELECTRONIC CIGARETTE LIQUID**

(Contd. of page 7)

- 11 *Highly flammable.*  
 22 *Harmful if swallowed.*  
 34 *Causes burns.*  
 36/37/38 *Irritating to eyes, respiratory system and skin.*  
 36/38 *Irritating to eyes and skin.*  
 38 *Irritating to skin.*

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*The contents and format of this MSDS/SDS are in according with REGULATION(EC) No. 1907/2006, EU Commission Directive 1999/45/EC, 67/548/EEC.*

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