



# MATERIAL SAFETY DATA SHEET

Report No.: JC-MCPC260367

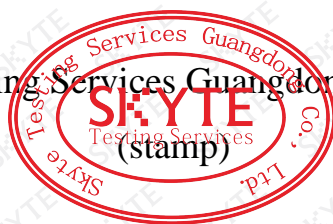
**Product Name:** E-Liquid

**Applicant:** Shenzhen Oplus Biotechnologies Ltd.  
Room 101 Building 17, Hejing Industrial Park,  
87 Hexiu West Road, Zhancheng Community,

**Address:** Fuhai Street, Bao'an District, Shenzhen, China.

**Issued Date:** Jun. 10, 2026

Skyte Testing Services Guangdong Co., Ltd.



**MATERIAL SAFETY DATA SHEET**

[IN ACCORDANCE WITH THE CRITERIA OF REGULATION NO 1907/2006 (REACH) AND 2020/1435]

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifiers**

E-Liquid with 20mg/mL nicotine

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

**Identified uses:** liquid filling for electronic cigarettes

**Uses advised against:** not determined

**1.3 Details of the supplier of the safety data sheet**

**Company:** Shenzhen Oplus Biotechnologies Ltd.

**Address:** Room 101 Building 17, Hejing Industrial Park, 87 Hexiu West Road, Zhancheng Community, Fuhai Street, Bao'an District, Shenzhen, China.

**Telephone:** -

**Fax:** -

**E-mail address:** -

**1.4 Emergency telephone number**

**Telephone:** Emergency number 110

Ambulance 120

Fire 119

**Section 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation 1272/2008/EC**

Acute Tox.4 (H302) (Contains Nicotine)

**2.2 Label elements**

**Hazard pictograms and signal words**



**WARNING**

**Hazard phrases**

H302: Harmful if swallowed.

**Safety phrases**

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P264: Wash contacting parts thoroughly after handling.

P301+P312: If SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

P501: Dispose of contents/container to designated place in accordance with local/regional/national/international regulations.

**Names of components on the label**

Contains: -

### 2.3 Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

## Section 3: Composition/information on ingredients

**3.1 Substance:** Not applicable. Please refer to 3.2 for more information.

### 3.2 Mixtures

Name	CAS number	Classification acc. To 1272/2008/EC	Weight % content
Propylene glycol	57-55-6	Substance is not classified as hazardous.	53.413
Glycerol	56-81-5	Substance is not classified as hazardous.	40.000
Nicotine	54-11-5	Acute Tox.2 (H300) Acute Tox.2 (H310) Acute Tox.2 (H330) Aquatic Chronic 2 (H411)	1.66
Benzoic acid	65-85-0	Skin Irrit.2 (H315) Eye Dam.1 (H318) STOT RE 1 (H372)	1.68
N,2,3-Trimethyl-2-isopropyl Butanamide	51115-67-4	Acute Tox.4 (H302)	2.034
Butanoic acid, ethyl ester	105-54-4	Flam. Liq.3 (H226)	0.241
Acetic acid, ethyl ester	141-78-6	Flam. Liq.2 (H225) Eye Irrit.2 (H319) STOT SE 3 (H336)	0.226
Butanoic acid, 2-methyl-, ethyl ester	7452-79-1	Flam. Liq.3 (H226)	0.165
Acetic acid	64-19-7	Flam. Liq.3 (H226) Skin Corr.1A (H314)	0.127
3-Hexen-1-ol, (Z)-	928-96-1	Flam. Liq.3 (H226) Eye Irrit.2 (H319)	0.123
cis-3-Hexenyl Acetate	3681-71-8	Flam. Liq.3 (H226)	0.104
Ethyl maltol	4940-11-8	Acute Tox.4 (H302)	0.053
Ethyl isovalerate	108-64-5	Flam. Liq.3 (H226) Skin Irrit.2 (H315)	0.049
Ethyl caproate	123-66-0	Flam. Liq.3 (H226)	0.042
Vanillin	121-33-5	Eye Irrit.2 (H319)	0.032
Cinnamic acid methyl ester	103-26-4	Skin Sens.1B (H317)	0.027
Dihydro methyl jasmonate	24851-98-7	Substance is not classified as hazardous.	0.024

Additional information:

Substances for which there are Union workplace exposure limits are listed in SECTION8.

For full text of H-statements: see SECTION 16.

## Section 4: First aid measures

### 4.1 Description of first aid measures

**Skin contact:** take off contaminated clothing. Wash the contaminated skin with water and soap. Immediately consult a



doctor.

**Eye contact:** remove contact lenses. Wash the contaminated eye with plenty of water for at least 15 minutes. Avoid powerful water stream. Consult a doctor if disturbing symptoms occur.

**Ingestion:** do not induce vomiting. Rinse mouth with water. Never give anything to drink to an unconscious person. Consult a doctor. Show the container or label.

**Inhalation:** Remove to fresh air. Keep warm and calm. Consult a doctor, if disturbing symptoms appear.

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

**Skin contact:** redness, dryness, itching. The product is absorbed by skin and causes the same symptoms as after ingestion: problems with breathing, dizziness, spasms, nausea, vomiting and in extreme cases-death.

**Eye contact:** redness, tearing, possible temporary irritation.

**Ingestion:** nausea, vomiting, in extreme cases, after drinking large quantity of the product, following symptoms may occur: nausea, problems with breathing, dizziness, contractions, disorders of the respiratory system.

**Inhalation:** in case of exposure on doses above the occupational exposure limits, symptoms of acute nicotine toxicity are: rapid breathing, nausea, vomiting, headache, dizziness, diarrhea, tachycardia, increased blood pressure, sweating, salivation, burning sensation in the oral cavity, throat and stomach.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

### **Section 5: Firefighting measures**

#### **5.1 Extinguishing media**

**Suitable extinguishing media:** Foam, dry extinguishing agents, water spray.

**Unsuitable extinguishing media:** Water jet - risk of the propagation of the flame.

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

During the fire, the product may produce toxic fumes of carbon monoxide and dioxide, nitric oxides and other unidentified products of thermal decomposition. Do not inhale combustion products.

#### **5.3 Advice for firefighters**

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals.

### **Section 6: Accidental release measures**

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

Limit the access for the outsiders into the breakdown area, until suitable cleaning operations are completed. In case of large spills, isolate the exposed area. Avoid contact with skin and eyes. Use personal protective measures.

#### **6.2 Environmental precautions**

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Material may be hazardous if released in large quantities to the environment. Notify relevant emergency services.

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

Damaged container put in emergency container. Absorb leakage with incombustible liquid-binding material (e.g. sand, earth, universal binders, silica, vermiculite) and collect mechanically into properly labeled containers for disposal. Clean the contaminated place.

**6.4 Reference to other sections:** Section 13 and section 8.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid skin and eyes contamination. Before break and after work wash hands carefully. Use personal protective measures. Ensure adequate ventilation. Do not let the product to get into mouth.

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

Keep only in original, tightly closed containers in a cool and well-ventilated area. Keep away from food, beverages or feed for animals. Avoid direct exposure to sunlight. Keep away from strong acids and oxidizing agents. After opening, seal the container and store in an upright position to prevent leakage.

### 7.3 Specific end use(s)

Liquid filling for electronic cigarettes.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Substance	Country	OEL value
Nicotine	Work evaluating existing limits, Germany, Denmark, France, Norway, Belgium, Spain, Ireland	0.5 mg/m <sup>3</sup> (8 h)
	Finland, United Kingdom	0.5 mg/m <sup>3</sup> (8 h) 1.5 mg/m <sup>3</sup> (15 min)
	Austria, Switzerland	0.5 mg/m <sup>3</sup> (8 h) 2 mg/m <sup>3</sup> (15 min)
	Sweden	0.1 mg/m <sup>3</sup> (8 h)
Propylene glycol	REACH Regulations	10 mg/m <sup>3</sup> Inhalation, local effects Long-term exposure 168 mg/m <sup>3</sup> Inhalation, systemic effects Long-term exposure
	United Kingdom	474 mg/m <sup>3</sup> (8 h)
	Norway	79 mg/m <sup>3</sup> (8 h)
	Ireland	470 mg/m <sup>3</sup> (8 h)-Vapor and particulates 10 mg/m <sup>3</sup> (8 h)-Particulates
Glycerin	American Conference of Governmental Industrial Hygienists	79 mg/m <sup>3</sup> (8 h)
	REACH Regulations	56 mg/m <sup>3</sup> Inhalation, local effects Long-term exposure
	Finland	20 mg/m <sup>3</sup> (8 h)
	France, United Kingdom, Switzerland, Belgium, Spain, Ireland	10 mg/m <sup>3</sup> (8 h)

Legal Basis: Commission Directive 2006/15/EC, 200/39/EC, 2009/161/EC.

### Recommended control procedures



Procedures Concerning the control over the dangerous components, concentrations in the air and control over the air quality in the workplace in Accordance with the European Standards.

### 8.2 Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Ensure exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure eye stations and safety showers.

#### Hand and body protection:

In case of short term contact use protective gloves made of nitrile rubber (minimal thickness: 0.2 mm; breakthrough time > 30 minutes). In case of long term contact use protective gloves made of butyl rubber (minimal thickness: 0.3 mm, breakthrough time > 480 minutes).

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation.

#### Eye protection:

Wear tightly fitting safety glasses if there is a risk of eye contamination.

#### Respiratory protection:

In case of normal use, in accordance with the intended use, it is not necessary.

Applied personal protective equipment must comply with the requirements of the Directive 89/686/EC. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.

### 8.3 Environmental exposure controls

Do not allow to enter large amounts of product to reach ground water, sewage, waste water or soil.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance:** Not available

**Odor:** Not available

**Odor threshold:** Not available

**pH:** Not available

**Melting point/freezing range:** Not available

**Initial boiling point and boiling range:** Not available

**Flash point:** Not available

**Evaporation rate:** Not available

**Flammability (solid, gaseous):** This product is liquid, not available.

**Upper/lower flammability or explosive limits:** Not available

**Vapor pressure:** Not available

**Vapor density:** Not available

**Relative density (water = 1 g/mL):** Not available

**Solubility(ies):** Not available

**Partition coefficient: n-octanol/water:** Not available

**Auto-ignition temperature:** Product is not self-igniting.

**Decomposition temperature:** Not available

**Viscosity:** Not available.

**Explosive properties:** Product does not present an explosion hazard.

**Oxidising properties:** Product does not present oxidizing properties.

**9.2 Other information:** Not available

### Section 10: Stability and reactivity

**10.1 Reactivity:** Product is feebly reactive. Product does not undergo a dangerous polymerization. See also 10.4-10.5

**10.2 Chemical stability:** The product is stable under normal storage and using condition.

**10.3 Possibility of hazardous reactions:** Dangerous reactions are not known.

**10.4 Conditions to avoid:** Avoid direct exposure to sunlight.

**10.5 Incompatible materials:** Strong oxidizing agents, acids.

**10.6 Hazardous decomposition products:** Not available

### Section 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Toxicity of components

LD/LC <sub>50</sub> values relevant for classification:		
CAS:54-11-5 Nicotine		
Oral	LD <sub>50</sub>	5 mg/kg bw
Dermal	LD <sub>50</sub>	70 mg/kg bw
Inhalation	LC <sub>50</sub>	0.19 mg/L(dusts/mists)

##### Toxicity of the mixture:

The acute toxicity estimate (ATEmix) for the classification of a substance in a mixture was determined using the appropriate from ECHA website.

##### Acute toxicity:

**ATEmix (oral)** = 301.20 mg/kg bw (Acute Tox. 4 (H302))

**ATEmix (dermal)** = 4216.87 mg/kg bw (Not classified)

**ATEmix (inhalation)** = 11.45 mg/L (Not classified)

##### Skin corrosion/irritation:

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

##### Serious eye damage/irritation:

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

##### Respiratory or skin sensitization:

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

##### Germ cell mutagenicity:

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

##### Carcinogenicity:

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

**Reproductive toxicity:**

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

**Summary of evaluation of the CMR properties:**

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

**STOT-single exposure:**

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

**STOT-repeated exposure:**

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

**Aspiration hazard:**

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

**11.2 Information on other hazards**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**Section 12: Ecological information**

**12.1 Toxicity**

<b>Values relevant for classification:</b>	
CAS: 54-11-5 Nicotine	
Classification:	Aquatic Chronic 2 (H411)
Fish (fresh water)	LC <sub>50</sub> (4 days) = 3 mg/L
Daphnia ( <i>Daphnia magna</i> )	EC <sub>50</sub> (48 h) = 3 mg/L
Alga ( <i>Desmodesmus subspicatus</i> )	EC <sub>50</sub> (72 h) = 11 - 37 mg/L

According to Regulation (EC) No 1272/2008, this product does not meet the criteria of classification of environmental toxicity.

**12.2 Persistence and degradability**

Data for the mixture are not available.

<b>Nicotine</b>	
OECD Guideline 301B	71% degradation after 28 days
<b>Propylene glycol</b>	
OECD Guideline 301F	81% biodegradation
Biodegradation in soil	High concentrations of Propylene glycol released into a soil environment can be expected to biodegrade.
Phototransformation in water	DT <sub>50</sub> = 1.3 year
<b>Glycerin</b>	
Biodegradation in water	Readily biodegradable

**12.3 Bio accumulative potential**

Data for the mixture are not available.

Nicotine	
Log Pow	1.17 (pH=12.17)

Propylene glycol	
BCF	0.09
Glycerin	
Log Pow	-1.75 (pH=7.4, 25°C)

#### 12.4 Mobility in soil

Data for the mixture are not available.

Propylene glycol	
Koc	2.9 (calculated from log Pow = -1.07 using the equation from the TGD (non-hydrophobics))
Henry's Law constant	0.06 atm m <sup>3</sup> /mol (12 °C)
Glycerin	
Henry's Law Constant (H):	0 atm m <sup>3</sup> /mol

#### 12.5 Results of PBT and vPvB assessment

Product does not contain ingredients, which meet criteria for PBT or vPvB.

#### 12.6 Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

#### 12.7 Other adverse effects:

The mixture is not classified as hazardous to the ozone layer.

### Section 13: Disposal considerations

#### 13.1 Waste treatment methods

Disposal method for the product: disposal in accordance with the local legislation. Do not empty into drains. Waste code should be given in the place of waste formation. The classification of this waste meets criteria for dangerous waste. Disposal methods for used packing: reuse/recycling/liquidation of empty containers dispose in accordance with the local legislation. The classification of this waste meets criteria for dangerous waste.

Legal Basis: Directive 2008/98/EC, 94/62/EC.

### Section 14: Transport information

#### 14.1 UN number

Product is not classified as hazardous during transport.

#### 14.2 UN proper shipping name

Not available

#### 14.3 Transport hazard class(es)

Not available

#### 14.4 Packing group

Not available

#### **14.5 Environmental hazards**

Not available

#### **14.6 Special precautions for user**

Move carefully to prevent leakage during carriage. Keep necessary protective articles at hand in case of accident.

Use emergency escape mask when in need.

#### **14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code":**

Not available

### **Section 15: Regulatory information**

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

**Regulation (EC) No 1907/2006** of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

**Regulation (EC) No 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

**Commission Regulation (EU) No 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

**Directive 2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

**European Parliament and Council Directive 94/62/EC** of 20 December 1994 on packaging and packaging waste.

**Economic commission for Europe Committee on Inland Transport ECE/TRANS/257(Vol. I )** of applicable as from 1 January 2017 European Agreement concerning the International Carriage of Dangerous (ADR)

**Convention concerning International Carriage by Rail (COTIF): Appendix C – Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)** with effect from 1 January 2017.

**Technical Instructions for the Safe Transport of Dangerous Goods by Air:** Order Number: Doc 9284, 2017-2018 Edition.

#### **15.2 Chemical safety assessment:**

A Chemical Safety Assessment is not required for mixtures in accordance with REACH Regulation.

### **Section 16: Other information**

#### **16.1 Full text if indicated H phrases mentioned**

H225: Highly flammable liquid and vapour

H226: Flammable liquid and vapor

H300: Fatal if swallowed

H302: Harmful if swallowed.

H310: Fatal in contact with skin

H314: Causes severe skin burns and eye damage

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H330: Fatal if inhaled

H336: May cause drowsiness or dizziness.

H372: Causes damage to organs through prolonged or repeated exposure.

H411: Toxic to aquatic life with long lasting effects

#### **Clarifications of aberrations and acronyms**

Acute Tox.2: Acute toxicity, Category 2

Acute Tox.4: Acute toxicity, Category 4

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard Category 2

Eye Dam.1: Eye damage, Category 1

Eye Irrit.2: Eye irritation, Category 2

Flam. Liq. 2: Flammable liquid, Category 2

Flam. Liq. 3: Flammable liquid, Category 3

Skin Corr. 1A: Skin corrosion, Category 1A

Skin Irrit.2: Skin irritation, Category 2

Skin Sens. 1B: Skin sensitisation, Category 1B

STOT RE 1: Specific target organ toxicity - Repeated exposure, Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Category 3

PBT: Persistent, Bioaccumulative and Toxic substance

vPvB: very Persistent, very Bioaccumulative substance

OECD: Organisation for Economic Co-operation and Development

OEL value: Occupational exposure limit value

LC<sub>50</sub>: Median Lethal concentration

LD<sub>50</sub>: Median Lethal dose

ATEmix: Acute Toxicity Estimate of mixture

bw: body weight

LoW: List of Wastes

#### **Trainings:**

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

#### **Key literature references and sources for data:**

This MSDS was prepared on the basis of sheets of the individual components, literature data, online databases (eg. ECHA) as well as our knowledge and experience, taking into account current legislation.

#### **Methods of evaluating information which was used for the purpose of classification acc. Regulation (EC) No 1272/2008**

Acute Tox. 4 (H302): calculation method

#### **Methods of evaluating information which was used for the purpose of transport acc. ECE/TRANS/242 (Vol.I):**



Calculation method

**Other data**

Purity of the ingredients present in Section 3 is > 98%, and does not affect the classification.

**THIS MSDS ANNULS AND REPLACES ALL PREVIOUS VERSIONS**

**DISCLAIMER OF LIABILITY**

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