

Rio

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

- 1.1. Product identifier**
Trade name Rio
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Relevant Identified uses For use in electronic cigarettes only.
- 1.3. Details of the supplier of the safety data sheet**
Xyfil Ltd
15-19 Sedgwick Street
Preston
PR1 1TP
E-mail: info@xyfil.com
Telephone: +44(0)1772 888 778
- 1.4. Emergency telephone number**
Emergency Tel: +44(0)1772 888 778 – Mon to Fri 9:00am to 5:00pm

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008 (CLP)
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Remarks: For full text of H-Phrases: See SECTION 16.
- 2.2. Label elements**
Labelling according to Regulation (EC) No 1272/2008 (CLP)
UFI
Signal Word This product does not need any signal word.
Hazard Pictograms This product does not need any hazard pictograms.
Hazard Statements This product does not need any hazard statement.
Precautionary Statements
Precautionary statements – General
P102 Keep out of reach of children.
Precautionary Statements – Prevention
P264 Wash hands thoroughly after handling.
EUH-Statement:
EUH208 Contains Lime Extract and Citral. May produce an allergic reaction.
- 2.3. Other hazards**
The mixture does not meet the criteria for classification as a PBT or vPvB..

SECTION 3: Composition/information on ingredients

- 3.1. Substances**
This product is a mixture.
- 3.2. Mixtures**
Composition / information on ingredients

Name of substance	CAS No	EC No	Wt %	Classification acc. to 1272/2008/EC	Pictograms
Glycerol	56-81-5	200-289-5	50-<75	No Classification	None
Propylene Glycol	57-55-6	200-338-0	25-<50	No Classification	None
Ethanol	64-17-5	200-578-6	≤ 0.5	Flam. Liq. 2, H225	GHS02
Citral	5392-40-5	226-394-6	≤ 0.1	Skin Irrit. 2, H315 Skin Sens. 1, H317	GHS07
Lime Extract	8008-26-2	290-010-3	≤ 0.2	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	GHS02 GHS09 GHS08 GHS07

Note: For full text of abbreviations: See SECTION 16.

Substances that are on the so-called "Candidate List of Substances of Very High Concern (SVHC) for authorization" of the European Chemicals Agency (ECHA) are not deliberate components of this product. It is therefore not to be expected that those substances will be present in the product in quantities of > 0.1%.

Rio

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes

Remove contaminated clothing immediately. Get medical attention if health problems occur.

Following inhalation

Supply fresh air. If the product irritates the respiratory tract: Consult a doctor.

Following skin contact

Wash off with plenty of water and soap, rinse.

Following eye contact

Remove contact lenses. Rinse immediately with plenty of water with the eyelid held wide open for at least 15 minutes. Possibly. Consult an ophthalmologist.

Following ingestion

Immediately rinse the mouth vigorously. Drink a lot of water (200 - 300 mL) in small sips (dilution effect). Avoid vomiting. No attempts at neutralization.

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

Acute effects can occur after short-term exposure (especially if large amounts are ingested or inhaled).

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

In the event of loss of consciousness: call a doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Carbon dioxide, polymer foam; Dry powder. Water spray can be used to cool surfaces exposed to fire or can be applied directly to the fire, provided the risk of fire spreading is extremely low.

Unsuitable Extinguishing Media

Do not use a full jet of water to disperse and spread the fire.

5.2. Special hazards arising from the substance or mixture

In the event of fire, dangerous vapours / gases can arise: carbon monoxide, carbon dioxide.

5.3. Advice for firefighters

Staying in the area of danger only with respiratory protection device independent of circulating air. Cool endangered containers with water spray from a safe distance. Knock out escaping vapours with water. Pay attention to flashback. Prevent fire-fighting water from entering surface and ground water and soil. Avoid skin contact by wearing suitable protective clothing and by keeping a safe distance.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Information for personnel not trained for emergencies: Avoid product contact and inhalation of the solvent vapours.

Avoid skin contact by maintaining a safe distance or wearing suitable protective clothing.

Instructions for emergency services: Use protective equipment according to section 8.

6.2. Environmental precautions

Prevent product and large quantities of contaminated washing water from entering water and soil. Cover the sewage system to prevent the product from entering the sewage system.

6.3. Methods and material for containment and cleaning up

For larger quantities: Pump off the product.

In the case of remnants: Limit leaked material with neutralizing and non-flammable absorbent and collect for disposal according to local regulations in the containers provided.

Take up small quantities (up to approx. 1 L) with plenty of water, dispose of water in the sewage system.

6.4. Reference to other sections

Observe protective measures under section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice for safe handling:

Do not leave the containers open.

General hygiene measures:

Do not eat, drink or smoke in areas where work is done. Wash hands after use. Remove contaminated clothing and protective equipment before entering areas where people eat.

7.2. Conditions for safe storage, including any incompatibilities

Rio

Store in cool, dry and well-ventilated area. Keep containers tightly closed. Protect from low temperatures, frost, direct sunlight or high temperatures. Ideal storage temperature range: between 20 to 25 degrees Celsius.

7.3. Specific end use(s)

As far as possible, keep only in the original packaging. Other suitable containers: steel drums; Aluminium containers, glass containers and high-density polyethylene (HDPE). Some types of rubber and plastics (low density polyethylene) are attacked by the product.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National Limit values

Workplace Exposure Limits (Occupational Exposure Limit)

Country	Substance	CAS No.	Limit value-8 hours (TWA)		Limit value-15 min (STEL)	
			ppm	mg/m ³	ppm	mg/m ³
GB	Glycerol	56-81-5		10		
GB	Propylene Glycol	57-55-6	150	474	-	-
GB	Ethanol	64-17-5	1000	1920	-	-

TWA: Time-Weighted Average (Long-term exposure limit): measured or calculated in relation to a reference period of 8 hours-time weighted average.

STEL: Short-Term Exposure Limit: a limit value above which exposure should not occur and which is related to a 15-min period unless otherwise specified.

8.2. Exposure controls

Engineering Measures

Suitable technical control devices

Technical measures and the use of suitable working methods have priority over the use of personal protective equipment. Ensure good ventilation. This can be achieved by local extraction or general exhaust air.

Personal protective equipment:

Personal protective equipment should be selected specifically for the workplace, depending on the concentration and quantity of hazardous substances.

Eye/face protection

Use safety glasses with side shields in accordance with EN 166: 2001. Make sure that the eye wash is easily accessible.

Skin protection

Hand Protection

Wear solvent and alkali resistant protective gloves according to EN 374.

Suitable material: Nitrile or butyl rubber

Thickness: 0.4 mm

Breakthrough time: ~ 150 min

Other

Suitable protective clothing: Lab apron or other working clothes.

Respiratory Protection

Not normally required under normal conditions of use and with adequate ventilation. Formation of mist or fumes must be avoided. Respiratory protection must be used if there is a risk of fumes or misting. Particle filter class P1 (EN143). Gas/vapour filter Type A: organic vapours (EN141).

Environmental Exposure Controls

See sections 6 and 7.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: Liquid form
Odour	: Characteristic odour
Odour threshold	: No data available currently.
pH	: No data available currently.
Melting point/freezing point	: No data available currently.
Boiling point	: No data available currently.
Flash Point(°C)	: > 65 °C
Evaporation Rate	: Negligible

Rio

Flammability limits % lower	: No data available currently.
Flammability limits % Upper	: No data available currently.
Vapour Pressure	: No data available currently.
Vapour density	: No data available currently.
Relative density	: No data available currently.
Solubility (Water)	: Soluble
Solubility (Benzene)	: Soluble
Solubility (Acetone)	: Soluble
Solubility (Ethanol)	: Soluble
Partition Coefficient n-Octanol/Water (Glycerol)	: -1.75 at 25 °C
Partition Coefficient n-Octanol/Water (Propylene Glycol)	: -1.07 at 20 °C
Auto Flammability(°C)	: No data available currently.
Decomposition temperature	: No data available currently.
Viscosity	: Viscous
Explosive properties	: No data available currently.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended transport or storage conditions.

10.2. Chemical stability

The product is chemically stable under normal ambient conditions (room temperature).

10.3. Possibility of hazardous reactions

When used as intended, no dangerous reactions are expected.

10.4. Conditions to avoid

Heat; hot surfaces; sources of ignition; flames; static discharge; moist air; humidity; moisture.

10.5. Incompatible materials

Strong acids; Strong alkalis; Strong oxidising agents.

10.6. Hazardous decomposition products

In combustion emits toxic fumes of carbon dioxide/carbon monoxide or acrolein. In a fire may liberate acrid and irritant fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity: Mixture

There are no toxicological findings for the mixture.

Acute Toxicity: Components of Mixture

Name of substance	CAS No	Acute Toxicity Data		
		Oral (LD50)	Dermal (LD50)	Inhalation (LC50)
Glycerol	56-81-5	Rat: 27,200 mg/kg	Guinea pig: 56,750 mg/kg	-
Propylene Glycol	57-55-6	Rat: 22 000 mg/kg bw	Rabbit: 20,800 mg/kg bw	-
Ethanol	64-17-5	Rat: 10470 mg/kg	-	Rat: 125mg/l 4h
Citral	5392-40-5	Rat: 6 800 mg/kg bw	-	-
Lime Extract	8008-26-2	Rat: > 5 000 mg/kg bw	Rabbit: > 5 000 mg/kg bw	-

Skin Corrosion/Irritation

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

Serious Eye Damage/Eye Irritation

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

Respiratory or Skin Sensitisation

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

Germ Cell Mutagenicity

The mixture is not classified. The mixture does not contain any substances that are classified as mutagenic.

Carcinogenicity

The mixture is not classified. The mixture does not contain any substances that are classified as carcinogenic.

Reproductive Toxicity

Rio

The mixture is not classified. The mixture does not contain any substances that are classified as toxic to reproduction.

Specific Target Organ Toxicity -Single Exposure (STOT-SE)

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

Specific Target Organ Toxicity-Repeated Exposure (STOT-RE)

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

Aspiration Hazard

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

SECTION 12: Ecological information

12.1. Toxicity

No data available.

Based on the available information, substance/mixture does not fulfil the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

Toxicity: Components of Mixture

Name of substance	CAS No	Short-Term Toxicity		Long-Term Toxicity	Toxicity to
		Fish (LC50)	Aquatic Invertebrates (EC50/LC50)	Aquatic Invertebrates (EC10, LC10 or NOEC)	Algae & Cyanobacteria (EC50)
Glycerol	56-81-5	54000 mg/l-96 h	1 955 mg/L-48h	-	2 900 mg/L-28 d
Propylene Glycol	57-55-6	40613 mg/l-96 h	18 340 mg/L-96h	13 020 mg/L-7d	19 000 mg/L-96h
Ethanol	64-17-5	11200 mg/L-96 h	5 012 mg/L	9.6 mg/L-10d	275 mg/L
Citral	5392-40-5	6.78 mg/L-96 h	6.8 mg/L-48h	-	103.84 mg/L
Lime Extract	8008-26-2	>18 mg/L-96h	5 mg/L-48h	-	8 mg/L-72

12.2. Persistence and degradability

Degradability of components of the mixture

Name of Substance	CAS No	Process	Degradation Rate	Time
Propylene Glycol	57-55-6	Oxygen consumption	106.80%	28 d
Propylene Glycol	57-55-6	CO2 Evolution	81.70%	28 d
Citral	5392-40-5	oxygen consumption	94.0%	28 d

12.3. Bio accumulative potential

Data is not available.

Bioaccumulation Potential of components of the mixture:

Name of Substance	CAS No	BFC	Log KOW	BOD5/COD
Glycerol	56-81-5		-1.75 at 25 °C and pH 7.4	
Propylene Glycol	57-55-6		-1.07 at 20 °C	
Ethanol	64-17-5		-0.35 at 20 °C	
Citral	5392-40-5		2.76 at 25 °C	

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances of this mixture do not meet the PBT / vPvB criteria of REACH Annex XIII

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Very small quantities (say <20 ml) may be discharged into the drains provided it is diluted before discharge. Large quantities should be given to licensed disposal company.

Recovery Operations

No information available currently.

Disposal of Packaging

Rio

Contaminated containers can be treated as household waste provided, they are washed and cleaned with water. Where practical, containers and packaging should be recycled by a licensed contractor (note regional or national regulations).

SECTION 14: Transport information

14.1. UN number

ADR/RID: -

IMDG: -

IATA: -

14.2. UN proper shipping name

ADR/RID: Not a dangerous goods

IMDG: Not a dangerous goods

IATA: Not a dangerous goods

14.3. Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4. Packing group

ADR/RID: -

IMDG: -

IATA: -

14.5. Environmental hazards

ADR/RID: -

IMDG Marine pollutant

IATA: -

14.6. Special precautions for user

There is not additional information.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

Regulation (EU) 2015/830

CLP Regulation 1272/2008 / EK

REACH Regulation 1907/2006 / EC

Council Directive 98/24 / EC of 7 April 1998 on the Protection of Health and Safety

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for this substance or the mixture by the supplier.

SECTION 16: Other information

Abbreviations and Acronyms

Abbr.	: Descriptions of used abbreviations
Acute Tox.	: Acute Toxicity
BOD	: Biological Oxygen Demand
CAS	: Chemical Abstract Service
CLP	: Regulation (EC) No 1272/2008 on classification, labelling & packaging of substances
CMR	: Carcinogenic, Mutagenic or Toxic for Reproduction
DMEL	: Derived Minimal Effect Level
DNEL	: Derived No-Effect Level
DOC	: Dissolved Organic Carbon
GHS	: Globally Harmonised System of classification and labelling of chemicals
IATA	: International Air Transport Association
IMDG	: International Maritime Dangerous Goods
LogKOW	: n-Octanol/water
PNEC	: Predicted No-effect Concentration
RID	: International Carriage of Dangerous Goods by Rail
STEL	: Short-Term Exposure Limit
TOC	: Total Organic Carbon
TWA	: Time Weighted Average
WEL	: Workplace Exposure Limit

List of Hazard Codes and Hazard Statements

H300	: Fatal if swallowed
H301	: Toxic if swallowed
H302	: Harmful if swallowed
H304	: May be fatal if swallowed and enters airways
H310	: Fatal in contact with skin
H311	: Toxic in contact with skin

Rio

- H312 : Harmful 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
- H331 : Toxic if inhaled
- H332 : Harmful if inhaled
- H335 : May cause respiratory irritation
- H336 : May cause drowsiness or dizziness
- H371 : May cause damage to organs
- H373 : Causes damage to organs through prolonged or repeated exposure
- H225 : Highly Flammable liquid and vapor
- H226 : Flammable liquid and vapor
- H410 : Very toxic to aquatic life with long lasting effects
- H411 : Toxic to aquatic life with long lasting effects
- H412 : Harmful to aquatic life with long lasting effects

Legal Disclaimer

The information provided in this safety data sheet is correct/accurate and represents the best information available to us – and believed to be reliable – at the time of publication. This information is given in good faith without any representation or warranty, expressed or implied, regarding its accuracy or correctness and we assume no liability resulting from its use.