Set in accordance to Regulation (EC) No. 1907/2006 (REACH), with updated according to Regulation (EC) No. 2015/830

CALUMETT

Mixture: Roasted Caramel Latte

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier:

Substance / product name: Roasted Caramel Latte Product code: CFM_001

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

Relevant identified uses: Product only intended to industrial use for electronic cigarettes liquids. Limited use. **Uses advised against:** Not recommend use out of scope.

1.1. Details of the supplier of the safety data sheet

Distributor: FLAVOR STREET LIMITED 13 Baggot Street Upper, 2nd Floor, Dublin 4, D04 W7K5, IRELAND Phone number: +442032894555 info@flavorstreet.ie

E-mail of the responsible person on the safety data sheet: info@flavorstreet.ie

1.2. Emergency telephone number:

1. Germany +49 30-18412-3460, Website: http://www.bfr.bund.de/en/home.html

2. United Kingdom 0870 600 6266; England and Wales: 0845 46 47 or NHS 111 - dial 111; Scotland: 08454 24 24 24

NHS 24 - dial 111; Republic of Ireland: 01 809 2166, Website: http://www.npis.org/

3. France +33 1 40 44 30 00, Website: https://www.declaration-synapse.fr/synapse

4. Italy +39 0649906140 and +39 0649902064, Website: <u>http://www.preparatipericolosi.iss.it</u>

All list of appointed poison centres (bodies) can be found at webpage: https://poisoncentres.echa.europa.eu/

Section 2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture according to Regulation 1272/2008 (CLP):

Hazard class	Hazard category	Hazard statement	Classification based on
Skin sensitisation	Category 1A	H317	method of individual components and concentration of this components in the
Eye irritation	Category 2	H319	mixture (see Sections 3, 11 and 12).

2.2. Label elements according to Regulation (EC) No. 1272/2008 (CLP):

Hazard pictogram (s):	GHS07	
Signal word:		Warning
Hazard statement (s):	H317 H319	May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statements:

Prevention:

P261 Avoid breathing dust/fume/ gas/mist/vapours/spray

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P321 Specific treatment (see if more details are available on this label). P302+P352 IF ON SKIN: Wash with plenty of water.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/national regulations.

Name of the substance should be provided in the label:

EC 222-908-8 2,5-DIMETHYL-4-HYDROXY-3-FURANONE (FURANEOL R) EC 204-409-7 PIPERONAL EC 204-354-9 DIHYDROCOUMARIN

2.3. Other hazards:

PBT and vPvB assessment: PBT: Does not contain. **vPvB:** Does not contain. **SVHC** (substances of very high concern): Does not contain. **Annex XIV of REACH** (Authorisation List): Does not contain. **Annex XVII of REACH** (restricted substances): Does not contain.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Substance name / REACH registration No	CAS / EC (Index)No.	Classification according to Regulation EB Nr.1272/2008	%
Propylene glycol / -	57-55-6 / 200-338-0	Does not classified	\geq 50 - < 100
Ethanol / -	64-17-5 / 200-578-6	Eye Irrit. 2, H319 Flam. Liq. 2, H225	≥2,5- <10
Vanilin / -	121-33-5/ 204-465-2	Eye Irrit. 2, H319	≥ 2,5 - < 10
2,5-dimethyl-4-hydroxy- 3-furanone (Furaneol R)	3658-77-3 / 222-908- 8	Skin Sens. 1A, H317 Eye Irrit. 2, H319	≥0 - <2,5
Ethyl vanilin	121-32-4 / 204-464-7	Eye Irrit. 2, H319	≥0 - <2,5
Piperonal	120-57-0 / 204-409-7	Skin Sens. 1B, H317	≥ 0 - < 2,5
Dihydrocoumarin	119-84-6 / 204-354-9	Acute Tox. 4, H302 Skin Sens. 1B, H317	≥0 - <2,5

(Note: Full text of hazard (H) statements related to the classification is listed in the Section 16.6.).

Section 4. FIRST AID MEASURES

4.1. Description of first aid measures

General information: Take off contaminated clothing. Wash/clean before using next time. Staff of first aid should pay attention on their own safety. Use personal protective equipment providing first aid to victims. Avoid direct, prolonged contact with the substance when providing first aid. Symptoms of mixture exposure may not immediately. To apply to

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the doctor have with you safety data sheet or label of the products. Call a POISON CENTER or get medical attention if you feel unwell. NEVER induce swallowing by an unconscious person.

On skin contact: Rinse with plenty of water using the appropriate detergent (soap, body wash, etc.). In the event of an allergic reaction, seek medical attention.

On contact with eyes: Do not scrub eyes; Rinse cautiously with water for several (15) minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention from a specialist.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove things how can block breathing (scarf, kerchief, etc.). If the symptoms occur consult with the doctor. Place unconscious person on the side in the recovery position, ensure breathing and immediately get medical attention.

If swallowed: Rinse mouth immediately with water (only if the person is conscious) and consult a doctor. Never give anything by mouth to an unconscious person. Not induce vomiting. If a person vomits when lying on his back, place him in the recovery position. If vomiting occurs keep head low. Get medical attention from a specialist.

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

Eyes: Irritation, tearing, light sensitivity, corneal lesions, decreased visibility, eye pain, swelling, increased sensitivity to light.

Swallowed: Nausea, dizziness, weakness, gastrointestinal irritation, coughing. Stomach, lung pain, diarrhoea. **Skin:** Irritation, redness, itching, dermatitis, allergies, rash.

Inhale: Dizziness, increased drowsiness, nausea, malaise, cough, difficulty breathing, asthma. Mucous membranes and upper respiratory track irritation, respiratory difficulties.

4.3. Indication of any immediate medical attention and special treatment needed: possible long-term/continuous effect, care is recommended. As symptoms can occur at latest poisoning stage supervision should be taken at least for 24 hours.

Section 5. FIREFIGHTTING MEASURE

General information: Installation of convenient servicing of the equipment, ventilation, communication devices, fire alarm system and control systems on the premises is required. In case of fire call the special services on emergency telephone by appropriate number, inform other employees, isolate the site of accident, encircle it with warning tapes. Only trained personnel can be involved on the fire liquidation. Wear personal protective equipment.

5.1. Extinguishing media

Suitable extinguishing media for use: powder or foam fire extinguishers, sand, non-combustible material, inert gas (nitrogen, carbon dioxide) air-mechanical foam, fumes, sprayed water or water mist. Unsuitable extinguishing media: strong water jet.

5.2. Special hazards arising from the substance or mixture: in case of fire may produce harmful/ irritation gases/ vapours. Do not breathe gases/ vapour. Keep away from sources of ignition/ heat. The flame-heated containers may cause an explosion. Use appropriate fire-fighting measures with respect to surrounding conditions. If exposed to fire, keep containers cool by spraying with water. Collect contaminated extinguishing water separately; do not allow reaching sewage or effluent systems.

5.3. Advice for firefighters: Do not breathe combustion products. Wear self-contained breathing apparatus with air supply (SCBA), appropriate protective equipment and chemical-protective clothing (EN469).

Section 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel: Use personal protective equipment as described in Section 8 and comply with the safety requirements of Section 7. Try to avoid direct contact with the product, do not inhale. As soon as possible leave contaminated area, obey the instructions from the emergency responders.

6.1.2. For emergency responders: In case of spills stop the work. Ensure adequate ventilation. Sight on concentration in the air. Remove sources of ignition. Evacuate people from the polluted area to safe area. Avoid cracks in the equipment and pipes used, overfilling of tanks, any spillage of the product. Work at workplaces and premises with installed ventilation with air supply and extraction. Use adequate personal protective equipment as specified in Section

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8 is appropriate. Only trained personnel can be involved in accident liquidation. In the event there are any victims, bring them out of the area of the accident, render them the first medical aid, and call an ambulance.

6.2. Environmental precautions: Do not allow enter to drains, surface water, ground water, drainage systems. Avoid release to the environment. If the product enters drains, surface water, ground water report to appropriate authorities. Prevent spreading over a wide area.

6.3. Methods and material for containment and cleaning up: Pour absorbent material (sand, absorbent) on a small amount of spilled mixture and collect it in a suitable, marked, sealed container and dispose of in accordance with the requirements of legislation (section 13). Ensure that dust/vapour does not accumulate during the cleaning. Wash the contaminated area with water. Collect the resulting cleaning solutions by mechanical / manual or technical / automated instruments. Utilize according to legal requirements. In the case of spills of large quantities should be install barriers that prevent from entering to the outflow pipes, watercourses, cellars, and other enclosed spaces. If the product release into sewage and / or surface water / groundwater, as well as release in large quantities and / or large areas inform the relevant authorities.

6.4. Reference to other sections: Observe for safe using and storage in the Section 7; Observe for personal protection equipment in Section 8; Observe about the product removal in Section 13.

Section 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Recommendations for safe handling: Follow the recommendations in Section 8; Utilize by Section 6.3 and 13. **Information on protection against fire and explosion:** Store at cool, dry place, keep away from heat/cold exposure, sparks and flame. Avoid direct sunlight, UV rays, physical effects. Do not smoking. Install ground/bond container and receiving equipment. Take appropriate measure to avoid static discharge. Do not weld, heat, cut, drill, throw, grind or otherwise make damage on the containers. In case of fire keep containers cool by spraying with water. Keep fire extinguishers and non-combustible absorption material on easily accessible place.

Information on aerosols and dust prevention: Avoid high vapour / aerosol concentrations in the air. Ensure that the workplace is an adequate air supply – exhaust ventilation. Use appropriate personal protective equipment as indicated in Section 8.

Environmental precautions: Do not allow enter to drains, surface water, ground water, drainage systems. Avoid release to the environment. Formation and accumulation of wastes and cleaning cloth shall be minimized.

7.1.2. Advice on general occupational hygiene: Do not eat, drink and smoke in work area. Wash hands after use. Use safety glasses, protective clothes and gloves. Remove contaminated clothing and protective equipment entering eating. Avoid contact with the skin and eyes. Do not inhale, do not swallow. Do not drink.

7.2. Conditions for storage, including any incompatibilities

Storage requirements: Keep in the tightly sealed containers in a dry, cool, well-ventilated place. Protect the product from air, water, sun or other environmental effects, dust or other various mechanical impurities, physical impact. Keep out of the reach of children, keep away from food, drink and animal feed. Ensure the appropriate conditions, keep in upright position to prevent from the fall. To avoid a potential explosion hazards the containers must be permanently fixed taking in account all possible precautionary measures. Use explosion-proof electrical / ventilating / lighting or other equipment. At the storage avoid direct sunlight, keep away from heat or sources of ignition. At the storage place must be prepared absorption material in case if product has spill. At the storage must be fire alarm. At the storage should be well-ventilated premises with extraction and supply ventilation systems installed. Assort fire-safety measures and inventory, fire alarm. Fire extinguishers should be kept handy. Storage temperature +12 - +20 °C. The containers must be sealed and resistant to the effects of the products.

Storage incompatibilities: It shall not be stored in the same premise with explosive materials; compressed gases, liquefied and dissolved under pressure; easily inflammable liquids and solid substances; organic peroxides and other oxidizing substances; substances exuding the inflammable gases which interact with water; caustic and corrosive substances.

Other information: Avoid of spillage or spreading even a small amount of product. Do not throw of residues in to container to avoid contamination and not be shortened validity of the products. Do not dispose to the landfills or sewers.

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Is not allowed to weld, heat, cut, drill, throw, grind or otherwise physically act on the containers with the product as well as on the containers without the product.

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)

Using the PE (protective equipment) must be accompanied by additional measures: operating time (duration of exposure) should reflect the additional physiological stress for the worker's use PE. Furthermore, it is considered that the use of certain PE reduces the employee's ability to use tools and communication for these reasons, the employee should be: healthy (especially in view of medical problems that can affect the PE using) and must ensure impermeability / tightness between the body and the PE (taking into account factors such as scarring, hair et al).

The employer and self-employed persons are legally responsible for the issuance and management of PE making adequate use in the workplace. Therefore, they should define and documented an appropriate PE use policies, including the employees training

8.1. Control parameters

Components related to workplace control parameters

Occupational exposure limit values:

CAS 64-17-5 STEL 1000 ppm (American, ACGIH TLV, Threshold Limit Values, 2010)

CAS 64-17-5 VME 500 ppm; 960 mg/m³ (Germany - AGW (BAuA - TRGS 900, 21/06/2010)

CAS 64-17-5 VME 1000 ppm; 1900 mg/m³ VLE 5000 ppm; 9500 mg/m³ (France INRS - ED984 :2012)

CAS 64-17-5 TWA 1000 ppm; 1920 mg/m³ (UK / WEL (Workplace exposure limits, EH40/2005, 2007)

CAS 57-55-6 TWA 150 ppm; 474 mg/m³ (UK / WEL (Workplace exposure limits, EH40/2005, 2007)

(Note: according to valid list and/or data provided by manufacturers / registrants on chemicals substances at the SDS compiling time. Based on our knowledge, the chemical, physical and toxicological properties of the mixture by self have not been thoroughly investigated).

8.2. Exposure controls

8.2.1. Appropriate engineering controls: working time an open-ended (till 480 minutes/shift, 5 shifts per week). Ensure that concentration in the air be below as permissible exposure limit values. Use the proper exhaust ventilation. Arrange regular air conditions control of work place. Ensure that eye wash stations and safety showers are close to the workstation location.

8.2.2. Individual protection measures, such as personal protective equipment: Avoid directly contact with the product. Wear suitable personal protective equipment. When using does not eat, drink or smoke. Before breaks and after work wash hands using appropriate tools (soap, etc.). Remove contaminated clothing and protective equipment after work or before breaks. Use certified protection equipment according to EU or equivalent requirements and standards. Ensure sufficiently limited risk using the technical measure as well as collective protection tools, methods or work organization procedures.

Eyes/face protection

Use equipment for eye protection tested and approved under appropriate government standards (DIN EN 166), avoid get into eyes.

Hand protection

Wear chemical protective gloves. The selected protective gloves material must be resistant to the product effects as well to have to satisfy the specifications of EU Directive 89/686/EEC derived from it (standard EN 374). Check protective gloves prior to each use for their proper condition. Choose gloves to protect hands against chemicals, depending on the concentration and quantity of the hazardous substance and specific to place of work Suitable material for long-term use is butyl (nitrile rubber) - thickness 0,6 - 0,8 mm, breakthrough time > 480 min. Contaminated gloves shall be replace immediately. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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Skin protection



Wear shoes, and long-sleeved clothing (EN 14605). Avoid the substance get in to the shoes. Choose body protection according to the amount and concentration of the dangerous substance at the work place. Recommend to wear antistatic protective clothing or at least cotton, non-electric clothes.

Respiratory protection



Use individual respiratory protection measures in case of insufficient ventilation with long-term exposure as well as formation of the dust are possible. Use the mask or half mask with filter, how protect against particles (EN 143, 14387), or filtered half mask with the valves to protect against particles (EN 149).

Thermal hazards: The usual precautions for working with the chemical substances.

8.2.3. Environmental exposure controls: emission from ventilation and/or manufacturing equipment must be tested at least annually to make sure the compliance to the environmental legislation.

Air: The impact on air must be carried in accordance with dust particle emissions calculation methodology and local/regional/national legislation.

Water: The impact on water must be carried in accordance with procedure for the discharge of waste water and the methods / criteria for determining the inputs into the environment.

Soil: The impact on soil must be carried in accordance with procedure for the discharge of waste water and the methods / criteria for determining the inputs into the environment.

Section 9. PHYSICAL AND CHEMICALS PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Odour	specific
Odour threshold	Not applicable/no data
pH	Not relevant
Melting point/freezing point	Not applicable/no data
Initial boiling point and boiling range	Not applicable/no data
Flash point	67 °C
Evaporation rate	Not applicable/no data
Flammability (solid, gas)	Not relevant
Upper/lower flammability or explosive limits	Not relevant
Vapour pressure	Not relevant
Vapour density	Not applicable/no data
Relative density	>1
Solubility (ies)	Soluble in water
Partition coefficient: n-octanol/water	Not applicable/no data
Auto-ignition temperature	Not relevant
Decomposition temperature	Not relevant
Viscosity	Not applicable/no data
Explosive properties	Not relevant
Oxidising properties	Not applicable/no data
9.2. Other information: Not applicable.	

Section 10. STABILITY AND REACTIVITY

10.1. Reactivity: No decomposition processes, exothermic reactions occur if the substance is used according to the intended purpose.

10.2. Chemical stability: Stable at the recommended use/storage conditions/

10.3. Possibility of hazardous reactions: Does not hazardous reactions at the recommended use/storage conditions.10.4. Conditions to avoid: Moisture, contamination combustible materials, alkalis, strong acids, oxidizers, high / low temperature, heat / cold, open flames, hostage / hot surfaces, freezing,

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10.5. Incompatible materials: explosives, compressed gases, liquefied gases, dissolved gases, flammable solids, self-reactive substances, substances which, in contact with water, emit flammable gases, oxidizing agents, organic peroxides, poisonous substances, infectious substances, radioactive material, corrosive substances, substances with relatively low risk of storage, strong acid and alkali, alkaline earth metals, halogens. 10.6. Hazardous decomposition products: combustion products.

Section 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: The mixture does not classified as acute toxic/harmful by oral, dermal or inhale according to the criteria of CLP regulation (Annex I, part 3.1.). Calculation method based on the provided LD/LC50 values or/and provided classification of related substances, using the conversion to the acute toxicity estimation and ATE_{mix} calculation method. **ATE mix (oral) = 20000**

ATE mix (dermal) = not applicable

ATE mix (inhale) = not applicable

Name	CAS / EC No.	LD / LC50 values
Propylene glycol / -	57-55-6 / 200-338-0	LD50 rat (oral): 22000 mg/kg LD50 rabbit (dermal): >2000 mg/kg LC50 rat (inhale): >44,9 mg/L (4 h.) NOEL rat (inhale) 41 mg/L (7 d.)
Ethanol / -	64-17-5 / 200-578-6	LD50 rat (oral): 10470 mg/kg LC50 rat (inhale) >117 mg/L (4 h.) LD50 (dermal): no suitable data
Vanilin / -	121-33-5 / 204-465-2	LD50 rat (oral): >3000 mg/kg LD50 rat (dermal): >2000 mg/kg LC50 (inhale): no suitable data
2,5-dimethyl-4-hydroxy-3- furanone (Furaneol R)	3658-77-3 / 222-908-8	No suitable data
Ethyl vanilin	121-32-4 / 204-464-7	LD50 rat (oral): >3160 mg/kg LD50 rat (dermal): >2000 mg/kg LC50 (inhale): no suitable data
Piperonal	120-57-0 / 204-409-7	LD50 rat (oral): 2700 mg/kg LC50 (inhale): no suitable data LD50 rat (dermal): >5000 mg/kg
Dihydrocoumarin	119-84-6 / 204-354-9	LD50 rat (oral): 1500 mg/kg LD50 (dermal): no suitable data LC50 (inhale): no suitable data

LD50/LC50 values of substances:

Skin corrosion/ serious eye damage: The substance according to the criteria of CLP regulation (Annex I, part 3.2. / 3.3.) does not classified as skin corrosion / serious eye damage. Based on available data, the classification criteria are not met.

Skin / serious eye irritation: The substance according to the criteria of CLP regulation (Annex I, part 3.2.2) does not classified as skin irritation. Based on available data, the classification criteria are not met.

However the substance according to the criteria of CLP regulation (Annex I, part 3.3.) does <u>classified as eye irritation</u>. Based on available data, the classification criteria are fulfilled.

Skin sensitization: The substance according to the criteria of CLP regulation (Annex I, part 3.4.) does <u>classified as skin</u> <u>sensitizer</u>. Based on available data, the classification criteria are fulfilled

Respiratory sensitization: The substance according to the criteria of CLP regulation (Annex I, part 3.4.) does not classified as respiratory sensitizer. Based on available data, the classification criteria are not met.

not classified

does

Mutagenicity: The substance according to the criteria of CLP regulation (Annex I, part 3.5.) mutagenic. Based on available data, the classification criteria are not met.

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Carcinogenicity: The substance according to the criteria of CLP regulation (Annex I, part 3.6.) does not classified as carcinogenic. Based on available data, the classification criteria are not met.

Reproductive toxicity: The substance according to the criteria of CLP regulation (Annex I, part 3.7.) does not classified as reproductive toxic. Based on available data, the classification criteria are not met.

Development toxicity: The substance according to the criteria of CLP regulation (Annex I, part 3.7.) does not classified as toxic for development. Based on available data, the classification criteria are not met.

STOT SE: The substance according to the criteria of CLP regulation (Annex I, part 3.8.) does not classified as specific target organ toxic (single exposure). Based on available data, the classification criteria are not met. **STOT RE:** The substance according to the criteria of CLP regulation (Annex I, part 3.9.) does not classified as specific target organ toxic (repeated exposure). Based on available data, the classification criteria are not met.

Aspiration toxicity: The substance according to the criteria of CLP regulation (Annex I, part 3.10.) does not classified as hazard for aspiration. Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics and delayed and immediate effects as well as chronic effects from short and long-term exposure: information on exposure as well as symptoms are provided in section 4 of SDS.

(Note: according to valid list and/or data provided by manufacturers / registrants on chemicals substances at the SDS compiling time. Based on our knowledge, the chemical, physical and toxicological properties of the mixture by self have not been thoroughly investigated).

Section 12. ECOLOGICAL INFORMATION

12.1. Eco toxicity

Aquatic Acute: The mixture according to the criteria of CLP regulation (Annex I, part 4.1.) does not classified as Aquatic Acute. Based on available data, the classification criteria are not met.

Aquatic Chronic: The mixture according to the criteria of CLP regulation (Annex I, part 4.1.) does not classified as Aquatic Chronic. Based on available data, the classification criteria are not met.

Name	CAS / EC No.	EC / LC 50 and NOEC values
Propylene glycol / -	57-55-6 / 200-338-0	Fish: LC50 40613 mg/L (96 h.) Invertebrates: LC50 18800 mg/L (96 h.) NOEC 13020 mg/L Algae: EC50 19000 mg/L (48 h.), NOEC: <5300 mg/L (14 d.)
Ethanol / -	64-17-5 / 200-578-6	Fish: LC50 15,3 g/L (96 h.), EC50 12,9 g/L (96 h.) NOEC 250 mg/L (120 h) Invertebrates: LC50 5012 mg/L (48 h) NOEC 2 mg/L (10 d.), LC50 1806 (10 d.) Algae: ErC50 275 mg/L (72 h.), EC10 11,5 mg/L (72 h.)
Vanilin / -	121-33-5 / 204-465-2	Fish: LC50: 57 mg/L (96 h.) Invertebrates: EC50: 36,79 mg/L (96 h.), NOEC: 26,8 (48 h.) NOEC: 5,9 mg/L (21 d.), EC50: 16 mg/L (21 d.) Algae: ErC50: 120 mg/L (72 h.), EyC50: 78,6 mg/L (72 h.), NOEC: 47 mg/L (72 h.)
2,5-dimethyl-4-hydroxy-3- furanone (Furaneol R)	3658-77-3 / 222-908-8	No suitable data
Ethyl vanilin	121-32-4 / 204-464-7	Fish: LC50 87,6 mg/L (96 h.) Invertebrates: EC50 36,79 mg/L (96 h), NOEC: 26,8 (48 h.), NOEC 5,9 mg/L (21 d.), EC50 16 mg/L (21 d.) Algae: ErC50: 120 mg/L (72 h.), EyC50: 78,6 mg/L (72 h), NOEC: 47 mg/L (72 h)
Piperonal	120-57-0 / 204-409-7	Fish: EC50 2,5 mg/L (96 h), NOEC 1,6 mg/L (96 h) Invertebrates: EC50 52 mg/L (48 h), NOEC 22 (48 h.)

NW

Acute/chronic data of substances

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		Algae: ErC50 31 mg/L (72 h), EyC50 6,8 mg/L (72 h.), NOEC 1,1 mg/L (72 h)
Dihydrocoumarin	119-84-6 / 204-354-9	No suitable data
Cinamic aldehyde	104-55-2 / 203-213-9	Fish: LC50 4,15 mg/L (96 h) Invertebrates: EC50 119,558 mg/L (48 h.) Algae: ErC50 16,09 mg/L (72 h)

12.2. Persistence and degradability: No further relevant information on the mixture are available. The substances in the mixture are considered as readily degradable.

12.3. Bio-accumulative potential: No further relevant information on the mixture are available. The substances in the mixture are considered as non bioaccumulative.

12.4. Mobility in soil: No further relevant information on the mixture are available.

12.5. Results of PBT and vPvB assessment: PBT: Not applicable; **vPvB**: Not applicable. The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. **12.6. Other adverse effects:** No significant effects or critical hazards know.

(Note: according to valid list and/or data provided by manufacturers / registrants on chemicals substances at the SDS compiling time. Based on our knowledge, the chemical, physical and toxicological properties of the mixture by self have not been thoroughly investigated).

Section 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment must be carried out in accordance with the procedure established by Law on Waste Management of the Republic of Ireland, Waste Management Regulations as well as other legislations of the Republic of Ireland. The Product must not be poured directly into sewerage or to the environment. Pour absorbent material (sand, absorbent) on a small amount of spilled mixture and shovel it into hermetic containers, wash the contaminated area with water. Hand over the contaminated absorbent to waste management companies as a hazardous waste.

Waste code: depends on the uses. Based on the uses and waste generation the waste code should assign end-user.

Note: Waste codes assigned based on common use of the product and may be unrelated to the emissions from the actual use. In order to attribute an appropriate waste disposal code, waste producer have to assess real process in time as waste was formed.

Contaminated packaging.

Completely empty container and disposed according legislation (Law on Waste Management of the Republic of Ireland, Waste Management Regulations).

Waste code: depends on the uses. Based on the uses and waste generation the waste code should assign end-user.

Warning: At empty containers may contain some residues which can be hazardous. Without adequate instructions do not try to refill or clean containers. Empty containers must be reused, recycled, disposed or given away to the contractor, who performs such a work and have the appropriate license. Protect containers against excessive pressure, don't cut, weld, non-shrink. Keep away from flame, sparks or other sources of ignition.

Section 14. TRANSPORT INFORMATION

For the product does not apply requirements and classification of transport of dangerous goods (IMDG, IATA, ADR/ RID).

		ADR – road haulage RID – rail transportation	ADNR – Carriage by vessels IMDG – Carriage by sea	IATA – carriage by air
14.1.	UN number	-	-	-
14.2.	UN proper shipping	-	-	-
14.3.	name UN Transport hazards class (-es)	-		-
14.4	Packing group	-		
14.5. Envir	Label onmental hazards	-	GEOR LA	

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Marine pollutant	-	-	-
Danger code (Kemler)	-	-	-
EMS number	-	-	-
Transport in bulk according to			
Annex II of MARPOL 73/8 and		-	
the IBC Code			

Section 15. REGULATORY INFORMATION

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

Regulation (EC) No. 1907/2006 of the European Parliament and the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH);

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP);

Commission Regulation (EU) 2015/830 of 28 May 2015;

Council Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods;

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment;

Directive 2012/18/EU of 4 July 2012;

Directive 94/33/EEB of 22 June 1994;

European Agreement concerning the International Carriage of Dangerous Goods by Road

Consolidated European Waste Catalogue

(Note: - Respectively in the latest version included all amendment and corrections).

15.2. Chemical safety assessment: In accordance with Regulation (EC) 1907/2006 (REACH) Article 14 a Chemical Safety Assessment not carried out (does not require for the mixtures).

Section 16. OTHER INFORMATION

16.1. Indication of changes: Information contained in the Regulation 1907/2006/EC with the Regulation 2015/830 as amended. Revision: 2018-05-10. Version: 1

16.2. Used method for classification: physical hazards – physical and chemical properties; Human Health and Environmental hazards – method based on ingredients and concentration range of ingredients.

16.3. Relevant identified uses of the substance or mixture: Product only intended to industrial use for electronic cigarettes liquids.

16.4. Abbreviations and acronyms

ACGIH - American Conference of Industrial Hygienists ADR/RID European agreement concerning the international carriage of dangerous goods by Road/ Rail. PPE Personal protective equipment CAS Chemical Abstracts Service CLP Regulation of classification, labelling and packaging (EB) No. 1272/2008 DNEL The derived no-effect level EC50 Term half maximal effective concentration ECHA The European Chemicals Agency EINECS European Inventory of Existing Commercial chemical Substances EWC European Waste Catalogue **ERC Environmental Release Categories** IARC - The International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LTEL Long Term Exposure Limit LC50 The median lethal dose MS Member states **CALUMETTE** NTP - Nacional toxicity program N/E - Excluded **OELV** Occupational Exposure Limit Values

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OSHA - Occupational Safety and Health Administration PBT Persistent Bioaccumulative and Toxic substances PNEC The Predicted No Effect Concentration PROC Process category PC Chemical Product category RE repeated exposure REACH Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals SCOEL The Scientific Committee on Occupational Exposure Limit SDS Safety data sheet SE single exposure STP Sewage treatment plant SU Sectors of use STOT Specific target organ toxicity TLV-TWA Threshold limit value - Time weighted average STEL Short-term exposure limit VLE Value Limit Exposure vPvB Very persistent and very bioaccumulative

16.5. Literature references

European chemicals bureau (ECB), European chemicals agency (ECHA), European Agency for safety and health at work (OSHA), European food safety agency (EFSA), Organisation for economic co-operation and development (OECD), Swedish Chemicals Agency (Kemi), The International Labour Organization (ILO), TOXNET and etc. databases and public provided data.

16.6. Full list of provided (section 2 and/or 3) hazard statements (H) for danger indications

Flammable liquids, category 2	H225	Highly flammable liquid and vapour
Acute toxicity by oral, Category 4	H302	Harmful if swallowed
Skin sensitisation, Category 1	H317	May cause an allergic skin reaction
Serious eye irritation, Category 2	H319	Causes serious eye irritation

16.7. Information on trainings

Workers/users shall be trained / introduced with the provided relevant hazard / safety information.

16.8. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if has been advised of the possibility of such damages.

