SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Grape Star, Flavouring Concentrate

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Grape Star(Contains:4-Hydroxy-2,5-dimethyl-3(2H)-furanone)

Other identifiers: None

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

Product uses: For use in electronic cigarette devices

1.3 Details of the supplier of the safety data sheet

Company name: Dinner Lady Fam Ltd

Company address: GM House
Wilkinson Way
Blackburn
BB1 2EH

Contact: Regulatory Affairs

E-Mail address: Compliance@VapeDinnerLady.com

Company phone: +44 (0)1254 865915

1.4 Emergency telephone number

Emergency phone: CHEMTREC 24-hour: +1-703-741-5500

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Sensitization - Skin Category 1
H317, May cause an allergic skin reaction.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H317, May cause an allergic skin reaction.

Supplemental Information: EUH208, Contains (2E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one, trans-Anethole. May produce an allergic reaction.

Precautionary statements: P261, Avoid breathing vapour or dust.
P272, Contaminated work clothing should not be allowed out of the workplace.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.

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P333/313, If skin irritation or rash occurs: Get medical advice/attention.

P363, Wash contaminated clothing before reuse.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:

2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	REACH Registration No.	%	Classification for (CLP) 1272/2008
2-Isopropyl-N,2,3-trimethylbutyramide	51115-67-4	256-974-4		1.66%	Acute Tox. 4;H302,-
trans-Anethole	4180-23-8	224-052-0		0.89%	Skin Sens. 1B;H317,-
Lactic acid	50-21-5	200-018-0		0.48%	Skin Irrit. 2-Eye Dam. 1;H315-H318,-
Acetic acid	64-19-7	200-580-7		0.28%	Flam. Liq. 3-Acute Tox. 4-Skin Corr. 1A-Eye Dam. 1;H226-H312-H314,-
4-Hydroxy-2,5-dimethyl-3(2H)-furanone	3658-77-3	222-908-8		0.22%	Eye Irrit. 2-Skin Sens. 1A;H317-H319,-
(2E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl) -2-buten-1-one	23726-93-4	245-844-2		0.09%	Skin Irrit. 2-Skin Sens. 1A-Aquatic Chronic 2; H315-H317-H411,-

Substances with Community workplace exposure limits:

Name	CAS	EC	REACH Registration No.	%	Classification for (CLP) 1272/2008
Propylene glycol	57-55-6	200-338-0		76.30%	-;-,-
Vegetable Glycerine	56-81-5	200-289-5		9.34%	-;-,-

Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%:

Not Applicable

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Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: IF ON SKIN: Wash with plenty of soap and water.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

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Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

For use in electronic cigarette devices: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits:

Ingredient	CAS	EC	Description	Value
Propylene glycol	57-55-6	200-338-0	Long-term exposure limit (8-hour TWA) (mg/m3)	474
			Long-term exposure limit (8-hour TWA) (ppm)	150
			UK WEL Long term mgm3	10
Vegetable Glycerine	56-81-5	200-289-5	Long-term exposure limit (8-hour TWA) (mg/m3)	10
			Short-term exposure limit (15-minute) (mg/m3)	30

8.2 Exposure Controls

Eye / Skin Protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact Material: butyl-rubber
Minimum layer thickness: 0.3 mm
Break through time: 480 min
Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

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Splash contact Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 30 min
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Light, slightly tepid liquid
Odour:	Characteristic - of grapes and fennel
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	≥ 93.3 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	1.0300
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined

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Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:
Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:
Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:
Not expected under normal conditions of use.

10.4 Conditions to avoid:
Avoid extreme heat.

10.5 Incompatible materials:
Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:
Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in Regulation (EC) No 1272/2008 (CLP).

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	>5000
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
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 sensitisation:	Sensitization - Skin Category 1
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.
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.

Information about hazardous ingredients in the mixture

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Ingredient	CAS	EC	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
2-Isopropyl-N,2,3-trimethylbutyramide	51115-67-4	256-974-4	500	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available
12.2 Persistence and degradability: Not available
12.3 Bioaccumulative potential: Not available
12.4 Mobility in soil: Not available
12.5 Results of PBT and vPvB assessment:
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.
12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:
Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class(es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	None	-			-
IMDG	None	-			-
ADR,RID,ADN	None	-			-
ICAO TI	None	-			-

14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None additional

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15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: SS 1=46.00%

Total Fractional Values: SS 1=2.17

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
Acute Tox. 4	Acute Toxicity - Dermal Category 4
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Eye Dam. 1	Eye Damage / Irritation Category 1
Eye Irrit. 2	Eye Damage / Irritation Category 2
Flam. Liq. 3	Flammable Liquid, Hazard Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H411	Toxic to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapour or dust.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

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P301/330/331	If swallowed: Rinse mouth. Do not induce vomiting.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304/340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Corr. 1A	Skin Corrosion / Irritation Category 1A
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1A	Sensitization - Skin Category 1A
Skin Sens. 1B	Sensitization - Skin Category 1B

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The customer must satisfy themselves that the product is entirely suitable for their particular purposes/use. Although certain hazards may be described we cannot predict that these are the only hazards, or combination of hazards, that may exist in a (user's) workplace.

In no event shall Dinner Lady Fam 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 Dinner Lady Fam has been advised of the possibility of such damages. This MSDS, therefore, forms a component only of a risk assessment carried out by, or on behalf of, the user.