

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH), amended by Regulation (EC) No. 2015/830

Lemon Tart, Concentrate**SECTION 1: Product and Company Identification**

Trade name: Lemon Tart, Concentrate

Brand name: Dinner Lady

REACH Registration number: Not Relevant (Mixture)

1.2 Relevant Identified uses of the substance or mixture and uses advised against

Relevant Identified uses: Concentrated aromatic raw material for manufacturing use only.

1.3 Details of the supplier of the safety data sheet

DINNER LADY FAM Ltd. Gm House, Wilkinson Way, Blackburn

Lancashire, BB1 2EH

E-mail: info@vapedinnerlady.com

Telephone: +44 (0)1254 865 915

Emergency Tel: +44 (0)7947 913074

CHEMTREC 24-hour: +1-703-741-5500 (Worldwide)

SECTION 2: Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP):

| Hazard Class | Category | Hazard Class and Category | Hazard Statement |
|---------------------|----------|---------------------------|------------------|
| Irritation, Eye | Cat. 2 | Eye Irrit. 2 | H319 |
| Sensitisation, Skin | Cat. 1 | Skin Sens. 1 | H317 |

Remarks

For full text of H-Phrases: See SECTION 16.



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2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal Word: Warning

Hazard Pictograms:



Hazard Statements:

H319 - Causes serious eye irritation

H317 - May cause an allergic skin reaction

Precautionary Statements:

Precautionary statements – General

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

P102 – Keep out of reach of children.

P312 – Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements – Prevention

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

P264 – Wash hands thoroughly after handling.

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

P363 – Wash contaminated clothing before reuse.

Precautionary Statements – Response

P302+P352 – IF ON SKIN: Wash with plenty of soap and water.

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

P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.

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

Precautionary Statements – Storage

P405 – Store locked up.

Precautionary Statements – Disposal

P501 - Dispose of contents, container in accordance with local regulation.

Hazardous Ingredients for labelling: DL-Malic Acid, Vanillin, Citral, 2-Acetylpyrazine, d-Limonene.



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SECTION 3: Composition, Information on Ingredients

Not relevant (mixture)

3.1 Mixtures

Description of the mixture

| Name of substance | CAS No | EC No | % (w/v) | Classification acc. to 1272/2008/EC | Pictograms |
|-------------------|------------|-----------|---------|---|---|
| Propylene Glycol | 57-55-6 | 200-338-0 | 60-<90 | | OEL |
| DL-Malic Acid | 617-48-1 | 210-514-9 | ≤ 10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 |  |
| Vanillin | 121-33-5 | 204-465-2 | ≤ 10 | Eye Irrit. 2, H319 |  |
| Citral | 5392-40-5 | 226-394-6 | ≤ 10 | Skin Irrit. 2, H315 Skin Sens. 1, H317 |  |
| 2-Acetylpyrazine | 22047-25-2 | 244-753-5 | ≤ 5 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |  |
| d-Limonene | 5989-27-5 | 266-034-5 | ≤ 3 | Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Flam. Liq. 3, H226 |    |

Notes OEL: Substances with a national occupational exposure limit value.

For full text of abbreviations: See SECTION 16.

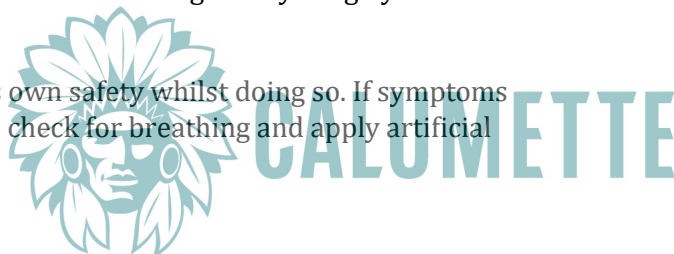
SECTION 4: First Aid Measures

4.1 Description of first aid measures - General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation:

Remove casualty from exposure ensuring one's own safety whilst doing so. If symptoms develop seek medical attention. If unconscious, check for breathing and apply artificial



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respiration if necessary. May cause irritation of the mucous membranes and respiratory system. Prolonged inhalation of mists may cause lung inflammation.

Following skin contact:

Wash with plenty of soap and water.

Following eye contact:

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion:

If conscious, wash the mouth out with water. Never give anything by mouth to an unconscious person. Do not induce vomiting.

4.2 Delayed/Immediate Effects

Immediate effects can be expected after short term exposure (especially if large quantities are ingested or inhaled).

4.3 Immediate/Special Treatment:

None

SECTION 5: Fire Fighting Measures**5.1 Exposure Hazards**

The product is not flammable but may support combustion. In combustion it emits toxic fumes of carbon dioxide/carbon monoxide and acrolein.

5.2 Extinguishing Media Suitable Extinguishing Media

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

Unsuitable Extinguishing Media:

Water jet

5.3 Protection for Fire Fighters:

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

SECTION 6: Accidental Release Measures

Avoid breathing vapours, mist or gas. Wear respiratory protection. Ensure adequate ventilation. Evacuate personnel to safe areas. Eliminate all sources of ignition. Wear suitable protective clothing. Do not handle the product without suitable protective clothing – see Section 8.



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Clean-Up Procedures

Dilute the sample with a good amount of water before absorbing the spillage into a tissue or dry earth or inert absorbent material (depending on the quantity of spillage). After clean-up, wash the spillage site with a large amount of water. Dispose of waste as hazardous. Keep in suitable, closed containers for disposal. .

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. The product contains nicotine and can pose risk to aquatic animals if released in large quantities.

Section 7: Handling and Storage

7.1 Handling

Avoid contact with skin and eyes. Avoid the formation or spread of mists in the air. Causes slippery surface when spilled. Ensure there is enough ventilation of the area.

7.2 Storage

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 Suitable Packaging

Wherever possible, should only be kept in original packaging. Other suitable containers: Steel drums; Aluminium containers, glass containers, and high-density polyethylene. Some rubbers and plastics (low density polyethylene) are attacked by the product.

Section 8: Exposure Control/Personal Protection

8.1 Control Parameters

National Limit Values

Workplace Exposure Limits

| Country | Name of Agent | CAS No | Identifier | TWA (ppm) | TWA (mg/m ³) | STEL (ppm) | STEL (mg/m ³) | Source | Vol % |
|---------|------------------|---------|------------|-----------|--------------------------|------------|---------------------------|-----------|--------|
| GB | Propylene Glycol | 57-55-6 | WEL | | 10 | | | EH40/2005 | 25-<50 |
| GB | Propylene Glycol | 57-55-6 | WEL | 150 | 474 | | | EH40/2005 | 25-<50 |

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.

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

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture



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| Name of substance | CAS No | Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|-------------------|---------|----------|-----------------------|------------------------------------|-------------------|--------------------------|
| Propylene Glycol | 57-55-6 | DNEL | 10 mg/m ³ | Human, Inhalation | Worker (Industry) | Chronic-local effects |
| Propylene Glycol | 57-55-6 | DNEL | 165 mg/m ³ | Human, Inhalation | Worker (Industry) | Chronic-systemic effects |

Relevant PNECs of components of the mixture

| Name of substance | CAS No | Endpoint | Threshold level | Organism | Environmental compartment | Exposure time |
|-------------------|---------|----------|-----------------|------------------|---------------------------|-----------------------------|
| Propylene Glycol | 57-55-6 | PNEC | 260 mg/L | Aquatic organism | Freshwater | Short-term (Singleinstance) |
| Propylene Glycol | 57-55-6 | PNEC | 26 mg/L | Aquatic organism | Marine Water | Short-term (Singleinstance) |
| Propylene Glycol | 57-55-6 | PNEC | 20 000 mg/L | Microorganisms | STP | Short-term (Singleinstance) |

8.2 Exposure Controls - Engineering Measures

Ensure there is enough ventilation of the area.

Eye Protection

Safety goggles (solvent resistant). Ensure eye bath is to hand.

Skin Protection

Protective clothing and boots. Wear gloves when handling the product.

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

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.



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SECTION 9: Physical And Chemical Properties

| | |
|-----------------------------------|---|
| Appearance: | Liquid Form |
| Colour: | No data available |
| Odour: | Characteristics |
| Evaporation Rate: | Negligible |
| Oxidising: | Non-oxidising by EC-criteria |
| Solubility in Water: | Miscible in almost all proportions |
| Also Soluble In: | Benzene, Acetone, Chloroform, carbon tetrachloride, carbon disulphide and most alcohols |
| Viscosity: | Viscous |
| Boiling Point: | Not determined |
| Flammability limits % lower: | Not determined (Product is combustible but not flammable) |
| Flammability limits % upper: | Not determined (Product is combustible but not flammable) |
| Flash point (°C): | >93.3°C |
| Auto Flammability (°C): | Not determined. |
| Relative Density at 20 °C: | ~1.184mg/ml |
| Melting Point (°C): | Not determined. |
| Vapour Pressure: | Not determined. |
| pH: | Not determined. |
| Part Coefficient n-Octanol/Water: | Not determined. |

SECTION 10: Stability and Reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical Stability

Stable under normal conditions. The product is hygroscopic.

10.3 Hazardous Reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to Avoid

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



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10.5 Material to Avoid

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

Classification Procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula). Classification according to GHS (1272/2008/EC, CLP)

Acute Toxicity

None.

| Name of Substance | CAS No | Exposure Route | End Point | Value | Species | Source |
|-------------------|-----------|----------------|-----------|------------------|---------|--------|
| Propylene Glycol | 57-55-6 | Oral | LD50 | 22 000 mg/kg bw | Rat | |
| Propylene Glycol | 57-55-6 | Dermal | LD50 | 20,800 mg/kg bw | Rabbit | |
| Citral | 5392-40-5 | Oral | LD50 | 6 800 mg/kg bw | Rat | |
| Ethyl Maltol | 4940-11-8 | Oral | LD50 | 1220 mg/kg bw | Rat | |
| Ethyl Maltol | 4940-11-8 | Dermal | LD50 | >5000 mg/kg bw | Rabbit | |
| Vanillin | 121-33-5 | Oral | LD50 | > 2 000 mg/kg bw | Rat | |
| Vanillin | 121-33-5 | Dermal | LD50 | > 2 000 mg/kg bw | Rat | |
| Vanillin | 121-33-5 | Oral | LD50 | > 41 mg/m3 | Rat | |
| d-Limonene | 5989-27-5 | Oral | LD50 | > 2 000 mg/kg bw | Rat | |
| d-Limonene | 5989-27-5 | Dermal | LD50 | > 5 000 mg/kg bw | Rabbit | |
| DL-Malic Acid | 617-48-1 | Oral | LD50 | 9300 mg/kg bw | Rat | |
| DL-Malic Acid | 617-48-1 | Inhalation | LC50 (4h) | 1.306 mg/L | Rat | |

Skin Corrosion/Irritation

May cause an allergic skin reaction.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation

Respiratory or Skin Sensitisation

Shall not be classified as respiratory or skin sensitizer.



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Summary of Evaluation of the CMR Properties

Shall not be classified as germ cell mutagenic, Carcinogenic nor as a reproductive toxicant.

Specific Target Organ Toxicity (STOT)

Shall not be classified as a specific target organ toxicant.

Aspiration Hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological Information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic Toxicity (Acute)

Aquatic Toxicity (Acute) of components of the mixture

| Name of Substance | CAS No | End Point | Value | Species | Exposure Time |
|-------------------|-----------|-----------|------------|---------|---------------|
| Propylene Glycol | 57-55-6 | LC50 | 40613 mg/l | Fish | 96 h |
| Vanillin | 121-33-5 | LC50 | 57 mg/L | Fish | 96 h |
| Ethyl Maltol | 4940-11-8 | LC50 | 85 mg/L | Fish | 96 h |
| Citral | 5392-40-5 | LC50 | 6.78 mg/L | Fish | 96 h |
| d-Limonene | 5989-27-5 | LC50 | <1 mg/L | Fish | 96 h |
| DL-Malic Acid | 617-48-1 | LC50 | > 100 mg/L | Fish | 96 h |

Biodegradation

The relevant substances of the mixture are readily biodegradable.

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 | CO ₂ Evolution | 81.70% | 28 d |
| Vanillin | 121-33-5 | TOC Removal | 97.00% | 14 d |
| Ethyl Maltol | 4940-11-8 | CO ₂ Evolution | 95.80% | 28 d |
| Citral | 5392-40-5 | oxygen consumption | 94.00% | 28 d |
| DL-Malic Acid | 617-48-1 | oxygen consumption | 67.50% | 28 d |

12.3 Bioaccumulation Potential

Data is not available.

Bioaccumulation Potential of components of the mixture:



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| Name of Substance | CAS No | BFC | Log KOW | BOD5/COD |
|-------------------|-----------|-----|---------------------------|----------|
| Propylene Glycol | 57-55-6 | | -1.07 at 20 °C | |
| Ethyl Maltol | 4940-11-8 | | 2.9 at 25 °C | |
| Vanillin | 121-33-5 | | 1.17 at 25 °C | |
| Citral | 5392-40-5 | | 2.76 at 25 °C | |
| d-Limonene | 5989-27-5 | | 4.38 at 25 °C | |
| DL-Malic Acid | 617-48-1 | | -1.27 at 24 °C and pH-2.3 | |

12.4 Mobility in Soil

No data available.

12.5 Other Adverse Effects

No data available.

SECTION 13: Disposal Considerations

13.1 Disposal Operations

Very small quantities (<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

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

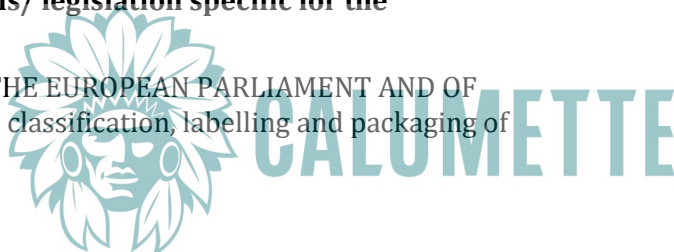
14.1 Transport Information

This product does not require any transport label in accordance The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). ECE/TRANS/242, Vol. I and II and corrigenda.

SECTION 15: Regulatory Information

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

- REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of



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substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with later amendments.

- ii. REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation 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 with later amendments.
- iii. Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- iv. Tobacco Product Directive 2014/14/EU (TPD).

15.2 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 and 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 |
| Log KOW | n-Octanol/water |
| PNEC | Predicted No-effect Concentration |
| STEL | Short-Term Exposure Limit |
| TOC | Total Organic Carbon |
| TWA | Time Weighted Average |
| WEL | Workplace Exposure Limit |



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Key literature references and sources for data

Supplier
ECHA

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
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



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SECTION 17. 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.

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.

