



Specification

Product Name: Toffee Flavour Drop

Product Code: SPEC0136

Description:

Food Flavouring Drops are premium quality water soluble intense flavours which provide an exceptionally efficient method of adding flavour. They are a highly concentrated, versatile, multi-use product for both food and liquid. They should be used sparingly; 1-2 ml is ample to flavour 1 litre of base liquid. Each 30ml bottle contains approximately 800 drops. Food Flavouring Drops disperse well in most foods and drinks. They are ideal for flavouring cakes, icings, fondants, ice cream, sorbets, cupcakes, pastry, salads, sauces, frostings, ganache, desserts, cocktails, drinks, cream, wine, beer, spirits, sweets and more. They can also be used to enhance the flavour of a dish, without changing the texture of the original product.

Odour & Flavour:

Characteristic. Conforms to standard.

Ingredients:

Natural flavouring substances, Flavouring preparations, Propylene Glycol (E1520).

Dietary Information:

Suitable for Vegans, Ovo-lacto Vegetarians & Vegetarians, Non-GMO, Gluten Free, Allergen Free, Non-Irradiated, No Added Sugar.

Nutritional Information:

Energy: 1673.6kj/400kcal (Based on 100g)

Storage:

Dark, dry and cool conditions, not in direct sunlight.

Packaging:

30ml	5060341112249
500ml	5056191010897
1 Litre	5056191006395
5 Litre	5056191006401

Country of Origin:

United Kingdom.

Shelf Life:

24 months if stored as above and unopened.

Density (g/ml) at 20°C:

1.090 – 1.110



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Tel: 01246 906247 | Foxwood Industrial Park, Chesterfield, S41 9RN, United Kingdom
Registered UK Company No: 08758412 | UK VAT No: GB175274393

**Refractive Index at 20°C:**

1.445 – 1.465

Flashpoint °C (closed cup):

>70

Labelling according to Regulation (EC) No. 1334/2008:

Flavouring

Hazards:

Non hazardous

Allergen Declaration

Allergen	Contains (Y/N)
Cereals containing Gluten	N
Crustaceans	N
Eggs	N
Fish	N
Peanuts	N
Soybeans	N
Milk	N
Nuts	N
Celery	N
Mustard	N
Sesame Seeds	N
Sulphur Dioxide and Sulphites (at concentration of more than 10mg/kg or 10mg/L in terms of Sulphur Dioxide)	N
Lupin	N
Molluscs	N

Material Safety Data Sheet

1: Identification of the substance/mixture and of the company/undertaking:**1.1 – Product identifier**

Product form: Mixture,

Product name: Toffee Flavour Drop.

1.2 – Relevant identified uses of the substance or mixture and uses advised against:**1.2.1: Relevant identified uses:** use of the substance/mixture: Food and/or beverage flavouring.**1.2.2: Uses advised against:** Restrictions on use: Not for direct consumption.**1.3 – Details of the supplier of the safety data sheet:**

Company: Special Ingredients Ltd, 4 Foxwood View, Chesterfield, S41 9RN. Tel: 0044 (0)1246 906247

1.4 - Emergency Telephone Contact: 07387 330318. <https://specialingredients.co.uk/pages/contact>www.specialingredients.co.ukTel: 01246 906247 | Foxwood Industrial Park, Chesterfield, S41 9RN, United Kingdom
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**2: Hazards Identification:****2.1 – Classification of the substance or mixture:**

Classification according to Regulation (EC) No. 1272/2008 (CLP): Not classified

Adverse physicochemical, human health and environmental effects: To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2 – Label elements:

Labelling according to Regulation (EC) no. 1272/2008 [CLP],

EUH-statements : EUH210 - Safety data sheet available on request.

2.3 – Other hazards:

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
4-hydroxy-3-methoxybenzaldehyde (121-33-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Propylene glycol (57-55-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

3: Composition/Information on Ingredients:**3.1 – Substances:**

Not applicable.

3.2 – Mixtures:

Name	Product identifier	%	Classification according to Regulation (EC) no.1272/2008 [CLP]
Diacetyl	CAS-No.: 431-03-8 EC-No.: 207-069-8	1 – 5	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:vapour), H331

Full Text of H- and EUH statements: see section 16.

4: First Aid Measures:**4.1 – Description of First Aid Measures:**

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact: Wash skin with plenty of water.

First-aid measures after eye contact: Rinse eyes with water as a precaution.

First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

**4.2 – Most important symptoms and effect, both acute and delayed:**

No additional information available

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

Treat Symptomatically.

5: Firefighting Measures:**5.1 - Extinguishing media:**

Suitable extinguishing media: Water spray, Dry powder, Foam, Carbon dioxide.

5.2 – Special hazards arising from the substance or mixture:

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3 – Advice for firefighters:

Protection during firefighting: Do not attempt to take action without suitable protective equipment, Self-contained breathing apparatus, Complete protective clothing.

6: Accidental Release Measures:**6.1 – Personal precautions, protective equipment and emergency procedures:****6.1.1 – For non-emergency personnel:**

Emergency procedures: Ventilate spillage area.

6.1.2 – For emergency responders:

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8. "Exposure controls/ personal protection."

6.2 – Environmental Precautions:

Avoid release to the environment.

6.3 – Methods and material for containment and cleaning up:

Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information: Dispose of materials or solid residues at an authorized site.

6.4 – Reference to other sections:

For further information refer to section 13.

7: Handling and Storage:**7.1 – Precautions for safe handling:**

Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

**7.2 – Conditions for safe storage, including any incompatibilities:**

Storage conditions: Store in a well-ventilated place. Keep cool.

7.3 – Specific end use(s):

No additional information available.

8: Exposure Controls/ Personal Protection:**8.1 – Control parameters:****8.1.1 National occupational exposure and biological limit values**

Propylene glycol (57-55-6)	
United Kingdom - Occupational Exposure Limits	
Local name	Propane-1,2-diol
WEL TWA (OEL TWA) [1]	474 mg/m ³ 10 mg/m ³
WEL TWA (OEL TWA) [2]	150 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Diacetyl (431-03-8)	
United Kingdom - Occupational Exposure Limits	
Local name	Diacetyl (Butanedione)
WEL TWA (OEL TWA) [1]	0.07 mg/m ³
WEL TWA (OEL TWA) [2]	0.02 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2 Recommended monitoring procedures

No additional information available.

8.1.3 Air contaminants formed

No additional information available.

8.1.4 DNEL and PNEC

No additional information available.

8.1.5 Control banding

No additional information available.

8.2 – Exposure controls:**8.2.1 Appropriate engineering controls**

Ensure good ventilation of the work station.

8.2.2 Person protective equipment

Wear recommended personal protective equipment



Personal protective equipment symbol(s):



8.2.2.1 Eye and face protection

Eye protection			
Safety Glasses			
Type	Field of application	Characteristics	Standard
Safety Goggles	Droplet, Dust	Clear, Plastic	EN 166 1B3

8.2.2.2 Skin protection

Skin and body protection	
Type	Standard
Lab Coat	ASTM F903

Hand Protection					
Protective gloves against chemicals (EN 374)					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	5 (> 240 minutes)	0.20-0.30	2 (< 1.5)	EN 420, EN 16523-1, EN ISO 374-1, EN 374-2, EN 374-4, EN 374-5

8.2.2.3 Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory Protection			
Device	Filter type	Condition	Standard
Powered Air-purifying Respirator (PAPR)	Filter AX (brown), Filter P (white), Type A – High Boiling (>65 °C) organic compounds	Protection for liquid particles, Protection for solid particles, Short term exposure	EN 12941

8.2.2.4 Thermal hazards

No additional information available

8.2.2.3 Environmental exposure controls:

Environmental exposure controls: Avoid release to the environment.

9: Physical and Chemical Properties:

9.1 – Information on basic physical and chemical properties:

Physical state: Liquid

Colour: dark brown.

Odour: Characteristic. Conforms to Standard.

Odour threshold: Not available

Melting point: Not applicable

Freezing point: Not available



Boiling point: Not available
Flammability: Not applicable
Explosive limits: Not available
Lower explosion limit: Not available
Upper explosion limit: Not available
Flash point: > 60 °C
Auto-ignition temperature: Not available
Decomposition temperature: Not available
pH: Not available
Viscosity, kinematic: Not available
Solubility: Not available
Partition coefficient n-octanol/water (Log Kow): Not available
Vapour pressure: Not available
Vapour pressure at 50°C: Not available
Density: 1.1 (1090 – 1110) g/ml at 20°C
Relative density: Not available
Relative vapour density at 20°C: Not available
Particle characteristics: Not applicable

9.2 – Other information:

9.2.1 – Information with regard to physical hazard classes

No additional information available

9.2.2 – Other safety characteristics

Refractive index: 1.445 – 1.465

10: Stability and Reactivity:

10.1 – Reactivity:

The product is non-reactive under normal conditions of use, storage and transport.

10.2 – Chemical Stability:

Stable under normal conditions.

10.3 - Possibility of hazardous reactions:

No dangerous reactions known under normal conditions of use.

10.4 – Conditions to avoid:

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5 – Incompatible materials:

No additional information available.

10.6 – Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11: Toxicological Information:

11.1 – Information on hazard classes as defined in Regulation (EC) No 1272/2008:



Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

4-hydroxy-3-methoxybenzaldehyde (121-33-5)	
LD50 oral rat	3300 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	3500 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE CLP (dermal)	3300 mg/kg bodyweight

Propylene glycol (57-55-6)	
LD50 oral rat	22000 mg/kg (Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (24 h, Rabbit, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 44.9 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 7 day(s))
ATE CLP (oral)	22000 mg/kg bodyweight

Diacetyl (431-03-8)	
LD50 oral	1580 mg/kg bodyweight
LC50 Inhalation - Rat (Vapours)	3 mg/l/4h
ATE CLP (oral)	1580 mg/kg bodyweight
ATE CLP (vapours)	3 mg/l/4h

Methylcyclopentenolone (80-71-7)	
LD50 oral	2500 mg/kg bodyweight
ATE CLP (oral)	2500 mg/kg bodyweight

Skin corrosion/irritation: Causes skin irritation.

Propylene glycol (57-55-6)	
pH	6.5 – 7.5 (50 %)

Serious eye damage/irritation: Not classified

Propylene glycol (57-55-6)	
pH	6.5 – 7.5 (50 %)



Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT-single exposure: Not classified

STOT-repeated exposure: Not classified

Glycine (56-40-6)	
NOAEL (oral, rat, 90 days)	≥ 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: other:Guidelines for Toxicity Studies of Drugs (Japanese Ministry of Health, Labor, and Welfare, 1990)

Aspiration hazard: Not classified

4-hydroxy-3-methoxybenzaldehyde (121-33-5)	
Viscosity, kinematic	Not applicable

Propylene glycol (57-55-6)	
Viscosity, kinematic	41.426 mm ² /s

Methylcyclopentenolone (80-71-7)	
Viscosity, kinematic	Not applicable

11.2 – Information on other hazards:

11.2.1 – Endocrine disrupting properties:

No additional information available

11.2.3 – Other information:

Other information: Special Ingredients Ltd do not test on animals, this is historical information.

12: Ecological Information:

12.1 – Toxicity:

Ecology – General: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute): Not classified

Hazardous to the aquatic environment, Long-term (Chronic): Not classified

4-hydroxy-3-methoxybenzaldehyde (121-33-5)	
LC50 - Fish [1]	57 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	36.79 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)



ErC50 algae	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
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Propylene glycol (57-55-6)	
LC50 - Fish [1]	40613 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)
ErC50 algae	24200 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Glycine (56-40-6)	
LC50 - Fish [1]	> 1000 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	> 220 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2 – Persistence and Degradability:

4-hydroxy-3-methoxybenzaldehyde (121-33-5)	
Persistence and degradability	Readily biodegradable in water.

Propylene glycol (57-55-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.96 – 1.08 g O /g substance
Chemical oxygen demand (COD)	1.63 g O /g substance
ThOD	1.69 g O /g substance

12.3 - Bioaccumulative Potential:

4-hydroxy-3-methoxybenzaldehyde (121-33-5)	
Partition coefficient n-octanol/water (Log Pow)	1.17 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Propylene glycol (57-55-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

**12.4 - Mobility in soil:**

4-hydroxy-3-methoxybenzaldehyde (121-33-5)			
Organic Carbon Adsorption Coefficient (Log Koc)	Normalized	3.438 (log Koc, Experimental value)	
Ecology – soil		Low potential for mobility in soil.	

Propylene glycol (57-55-6)			
Surface tension	71.6 mN/m (21.5 °C, 1.01 g/l, EU Method A.5: Surface tension)		
Organic Carbon Adsorption Coefficient (Log Koc)	Normalized	0.46 (log Koc, Calculated value)	
Ecology – soil		Highly mobile in soil	

12.5 - Results of PBT and vPvB assessment:

Component	
4-hydroxy-3-methoxybenzaldehyde (121-33-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Propylene glycol (57-55-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6 – Endocrine disrupting properties:

No additional information available.

12.7 – Other adverse effects:

No additional information available.

13: Disposal Considerations:**13.1 – Waste treatment methods:**

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

14: Transport Information:

In accordance with ADR/IMDG/IATA/ADN/RID.

14.1 UN number

UN-NO. (ADR): Not applicable

UN-NO. (IMDG): Not applicable

UN-NO. (IATA): Not applicable

UN-NO. (ADN): Not applicable

UN-NO. (RID): Not applicable

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**14.2 UN proper shipping name**

Proper Shipping Name (ADR): Not applicable
Proper Shipping Name (IMDG): Not applicable
Proper Shipping Name (IATA): Not applicable
Proper Shipping Name (ADN): Not applicable
Proper Shipping Name (RID): Not applicable

14.3 Transport hazard classes**ADR**

Transport hazard class(es) (ADR): Not applicable

IMDG

Transport hazard class(es) (IMDG): Not applicable

IATA

Transport hazard class(es) (IATA): Not applicable

ADN

Transport hazard class(es) (ADN): Not applicable

RID

Transport hazard class(es) (RID): Not applicable

14.4 Packing group

Packing group (ADR): Not applicable
Packing group (IMDG): Not applicable
Packing group (IATA): Not applicable
Packing group (ADN): Not applicable
Packing group (RID): Not applicable

14.5 Environmental hazards

Dangerous for the environment: No
Marine pollutant: No
Other information: No supplementary information available

14.6 – Special precautions for user:

Overland transport: Not applicable
Transport by sea: Not applicable
Air transport: Not applicable
Inland waterway transport: Not applicable
Rail transport: Not applicable

14.7 – Transport in bulk according to IMO instructions

Not applicable.

15: Regulatory Information:

**15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture:****15.1.1 – EU regulations:**

REACH Annex XVII (Restriction List): Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List): Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List: PIC Regulation (Prior Informed Consent): Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants): Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009): Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148): Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004): Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2 – National Regulations:

Germany

Water hazard class (WGK): Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV).

Hazardous Incident Ordinance (12. BImSchV): Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen: Carob Bean Extract is listed

SZW-lijst van mutagene stoffen: Carob Bean Extract is listed

SZW-lijst van reprotoxische stoffen – Borstvoeding: None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid: None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling: None of the components are listed

Denmark

Classification remarks: Emergency management guideline for the storage of flammable liquids must be followed.

Danish National Regulations: Pregnant/breastfeeding women working with the product must not be in direct contact with the product.

15.2 – Chemical safety assessment:

No chemical safety assessment has been carried out.

16: Other Information:

Abbreviations and acronyms	
ADN	European Agreement concerning the international carriage of dangerous goods by inland waterways
ADR	European Agreement concerning the international carriage of dangerous goods by road
ATE	Acute toxicity Estimate
BCF	Bio-concentration factor



BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived minimal effect level
DNEL	Derived-no effect level
EC-No.	European community number
EC50	Median effective concentration
EN	European standard
IARC	International Agency for research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bio accumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the international Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bio accumulative
ED	Endocrine disrupting properties

Full Text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
EUH210	Safety data sheet available on request.
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H331	Toxic if inhaled.

The information contained herein is to the best of our knowledge, but since the circumstances and conditions in which it may be used are beyond our control, we do not accept any liability whatsoever, however arising, which results directly or indirectly from the use of the product.