Green Apple

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Green Apple

1.2. Recommended use and restrictions on use

No additional information available

1.3.

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (ACCT# CCN725182)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids, Category 4 — Combustible liquid

Serious eye damage/eye irritation, Category 2 — Causes serious eye irritation.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning

Hazard statements (GHS US) : Combustible liquid
Causes serious eye irritation.

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wash hands, forearms and face thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use media other than water to extinguish.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
DPG / Dipropylene Glycol	CAS-No.: 25265-71-8	10-30	Acute Tox. 4 (Inhalation:dust,mist), H332
Vanillin	CAS-No.: 121-33-5	1-5	Eye Irrit. 2, H319
Coumarin	CAS-No.: 91-64-5	1-5	Acute Tox. 4 (Oral), H302 Aquatic Acute 3, H402
Ethyl Acetate	CAS-No.: 141-78-6	1-5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Alcohol C-6	CAS-No.: 111-27-3	1-5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302
Ethyl Lactate	CAS-No.: 687-47-8	1-5	Flam. Liq. 3, H226 Eye Dam. 1, H318 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact : Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

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

SECTION 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. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes.
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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethyl Acetate (141-78-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethyl acetate

Ethyl Acetate (141-78-6)	
ACGIH OEL TWA [ppm]	400 ppm
Remark (ACGIH)	URT & eye irr
Regulatory reference	ACGIH 2018
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl acetate
OSHA PEL TWA [1]	1400 mg/m³
OSHA PEL TWA [2]	400 ppm
Regulatory reference (US-OSHA)	OSHA

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Mixture contains one or more component(s) which have the following colour(s):
White to yellow White to light yellow On exposure to light: discolours Colourless Colourless to white Colourless to light yellow
Odour : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Mixture contains one or more component(s) which have the following odour:
Floral odour Pleasant odour Fruity odour Sweet odour Ester smell Mild odour Almost odourless Alcohol odour
Odour threshold : No data available
pH : No data available
Melting point : Not applicable

Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	> 141 °F
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

No additional information available

SECTION 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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Vanillin (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))

Vanillin (121-33-5)	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	3300 mg/kg bodyweight

Coumarin (91-64-5)	
LD50 oral rat	300 – 900 mg/kg (Rat)
ATE US (oral)	300 mg/kg bodyweight

Ethyl Acetate (141-78-6)	
LD50 oral rat	10200 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Female, Experimental value)
LD50 dermal rabbit	> 20000 mg/kg bodyweight (24 hour cuff method, 24 h, Rabbit, Male, Experimental value)
ATE US (oral)	10200 mg/kg bodyweight

Alcohol C-6 (111-27-3)	
LD50 oral rat	720 mg/kg (Rat, Oral)
LD50 dermal rabbit	2540 mg/kg (Rabbit, Dermal)
ATE US (oral)	720 mg/kg bodyweight
ATE US (dermal)	2540 mg/kg bodyweight

Ethyl Lactate (687-47-8)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study, Dermal)
LC50 Inhalation - Rat	> 5.4 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))

DPG / Dipropylene Glycol (25265-71-8)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male/female, Experimental value)
LD50 dermal rabbit	> 5010 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male/female, Experimental value)
LC50 Inhalation - Rat	2.34 mg/l (Equivalent or similar to OECD 403, Rat, Male/female, Experimental value)
ATE US (vapours)	2.34 mg/l/4h
ATE US (dust,mist)	2.34 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Coumarin (91-64-5)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

Ethyl Acetate (141-78-6)	
STOT-single exposure	May cause drowsiness or dizziness.

Ethyl Lactate (687-47-8)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after eye contact : Eye irritation.

SECTION 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.

Vanillin (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)

Coumarin (91-64-5)	
LC50 - Fish [1]	56 mg/l (96 h, Poecilia reticulata)
EC50 - Crustacea [1]	13.5 mg/l (48 h, Daphnia magna)

Ethyl Acetate (141-78-6)	
LC50 - Fish [1]	230 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	154 mg/l (48 h, Daphnia magna, Literature)

Alcohol C-6 (111-27-3)	
LC50 - Fish [1]	144 mg/l (96 h, Brachydanio rerio, Static system)
EC50 - Crustacea [1]	201 mg/l (24 h, Daphnia magna)

Ethyl Lactate (687-47-8)	
LC50 - Fish [1]	320 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	683 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	3500 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Semi-static system, Fresh water, Experimental value, Nominal concentration)

DPG / Dipropylene Glycol (25265-71-8)	
LC50 - Other aquatic organisms [1]	3181 mg/l (Other, 48 h, Xenopus laevis, Fresh water, Experimental value)

12.2. Persistence and degradability

Vanillin (121-33-5)	
Persistence and degradability	Readily biodegradable in water.
Coumarin (91-64-5)	
Persistence and degradability	Readily biodegradable in water.
Ethyl Acetate (141-78-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.293 g O_2/g substance
Chemical oxygen demand (COD)	1.69 g O_2/g substance
ThOD	1.82 g O_2/g substance
Alcohol C-6 (111-27-3)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	2.6 g O_2/g substance
ThOD	2.8 g O_2/g substance
BOD (% of ThOD)	0.28
Ethyl Lactate (687-47-8)	
Persistence and degradability	Readily biodegradable in water.
ThOD	1.35 g O_2/g substance
DPG / Dipropylene Glycol (25265-71-8)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

Vanillin (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).
Coumarin (91-64-5)	
BCF - Fish [1]	< 10 (72 h, Leuciscus idus)
BCF - Other aquatic organisms [1]	42 (24 h, Chlorella sp., Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.39
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Ethyl Acetate (141-78-6)	
BCF - Fish [1]	30 (3 day(s), Leuciscus idus, Static system, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	0.68 (Experimental value, EPA OPPTS 830.7560, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Alcohol C-6 (111-27-3)	
Partition coefficient n-octanol/water (Log Pow)	2.03 (Experimental value)

Alcohol C-6 (111-27-3)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Ethyl Lactate (687-47-8)	
Partition coefficient n-octanol/water (Log Pow)	0.31 (QSAR, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

DPG / Dipropylene Glycol (25265-71-8)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

Vanillin (121-33-5)	
Partition coefficient n-octanol/water (Log Koc)	3.438 (log Koc, Experimental value)
Ecology - soil	Low potential for mobility in soil.

Ethyl Acetate (141-78-6)	
Surface tension	0.024 N/m (20 °C)
Ecology - soil	Low potential for adsorption in soil.

Alcohol C-6 (111-27-3)	
Surface tension	0.026 N/m (25 °C)

Ethyl Lactate (687-47-8)	
Surface tension	0.07 N/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	No (test)data on mobility of the substance available.

DPG / Dipropylene Glycol (25265-71-8)	
Surface tension	71.4 mN/m (22 °C, 1.01 g/l)
Partition coefficient n-octanol/water (Log Koc)	0.78 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable

Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Vanillin (121-33-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Coumarin (91-64-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethyl Acetate (141-78-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb

Alcohol C-6 (111-27-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

DPG / Dipropylene Glycol (25265-71-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Vanillin (121-33-5)
Listed on the Canadian DSL (Domestic Substances List)

Coumarin (91-64-5)
Listed on the Canadian DSL (Domestic Substances List)

Ethyl Acetate (141-78-6)
Listed on the Canadian DSL (Domestic Substances List)

Alcohol C-6 (111-27-3)
Listed on the Canadian DSL (Domestic Substances List)

DPG / Dipropylene Glycol (25265-71-8)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Component	State or local regulations
Ethyl Acetate(141-78-6)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Alcohol C-6(111-27-3)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
DPG / Dipropylene Glycol(25265-71-8)	U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Safety Data Sheet (SDS), USA

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.