

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 09/14/2018 Revision date: 02/02/2024 Supersedes: 10/25/2023

SECTION 1: Identification Identification 1.1. Product form : Mixture Product name Watermelon Flavoring, All Natural CAS-No. N/A Product code : 99364-5 Recommended use and restrictions on use 1.2. 1.3. Supplier Shay and Company 10639 SE Fuller Rd Milwaukie, OR 97222 503-653-1155 1.4. **Emergency telephone number** Emergency number : CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300 CCN 1014530 SECTION 2: Hazard(s) identification 2.1. **Classification of the substance or mixture GHS US classification** Skin sensitization, Category 1 May cause an allergic skin reaction Suspected of damaging fertility or the unborn child Reproductive toxicity Category 2 22 GHS Label elements, including precautionary statements **GHS US labeling** Hazard pictograms (GHS US) GHS07 GHS08 Signal word (GHS US) : Warning Hazard statements (GHS US) May cause an allergic skin reaction Suspected of damaging fertility or the unborn child Precautionary statements (GHS US) Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of water. If exposed or concerned: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Store locked up. 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

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable **3.2. Mixtures**

Name	Product identifier	%	GHS US classification
VANILLIN	(CAS-No.) 121-33-5	1 – 5	Eye Irrit. 2A, H319
D-LIMONENE	(CAS-No.) 5989-27-5	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
2,6-Dimethyl-5-heptenal	(CAS-No.) 106-72-9	1 – 5	Flam. Liq. 4, H227 Skin Sens. 1B, H317
GAMMA-TERPINENE	(CAS-No.) 99-85-4	0.1 – 1	Flam. Liq. 3, H226 Repr. 2, H361 Asp. Tox. 1, H304
CITRAL	(CAS-No.) 5392-40-5	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT RE 2, H373

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 general	: IF exposed or concerned: Get medical advice/attention.
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. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
4.2. Most important symptoms and eff	ects (acute and delayed)
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
4.3. Immediate medical attention and s	special treatment, if necessary
Treat symptomatically.	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguis	shing media
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Specific hazards arising from the	chemical
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
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 me	asures
6.1. Personal precautions, protective e	equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
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 contain	nent and cleaning up
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
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Other information	: Dispose of materials or solid residues at an authorized site.
.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and stora	ge
7.1. Precautions for safe handling	
Precautions for safe handling	Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, ir	ncluding any incompatibilities
Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool.
SECTION & Experime controlo	in a reaction
SECTION 8: Exposure controls/	personal protection
3.1. Control parameters	
NATURAL WATERMELON FLAVOR (N	I/A)
	I/A)
NATURAL WATERMELON FLAVOR (N	I/A)
NATURAL WATERMELON FLAVOR (N No additional information available	I/A)
NATURAL WATERMELON FLAVOR (N No additional information available VANILLIN (121-33-5)	I/A)
NATURAL WATERMELON FLAVOR (N No additional information available VANILLIN (121-33-5) No additional information available	I/A)
NATURAL WATERMELON FLAVOR (N No additional information available VANILLIN (121-33-5) No additional information available D-LIMONENE (5989-27-5)	
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NATURAL WATERMELON FLAVOR (N No additional information available VANILLIN (121-33-5) No additional information available D-LIMONENE (5989-27-5) No additional information available GAMMA-TERPINENE (99-85-4) No additional information available CITRAL (5392-40-5) USA - ACGIH - Occupational Exposure Local name	e Limits Citral
NATURAL WATERMELON FLAVOR (N No additional information available VANILLIN (121-33-5) No additional information available D-LIMONENE (5989-27-5) No additional information available GAMMA-TERPINENE (99-85-4) No additional information available CITRAL (5392-40-5) USA - ACGIH - Occupational Exposure Local name ACGIH OEL TWA [ppm]	e Limits Citral 5 ppm (IFV - Inhalable fraction and vapor) TLV® Basis: Body weight eff; URT irr; eye dam. Notations: Skin; DSEN; A4 (Not
NATURAL WATERMELON FLAVOR (N No additional information available VANILLIN (121-33-5) No additional information available D-LIMONENE (5989-27-5) No additional information available GAMMA-TERPINENE (99-85-4) No additional information available CITRAL (5392-40-5) USA - ACGIH - Occupational Exposure Local name ACGIH OEL TWA [ppm] Remark (ACGIH)	e Limits Citral 5 ppm (IFV - Inhalable fraction and vapor) TLV® Basis: Body weight eff; URT irr; eye dam. Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)

8.2. Appropriate engineering controls

Appropriate engineering controls

: Ensure good ventilation of the work station.: Avoid release to the environment.

Environmental exposure controls

Individual protection measures/Personal protective equipment

Hand protection:

8.3.

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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SECTION 9: Physical and chemical	properties
9.1. Information on basic physical and o	
Physical state	: Liquid
Color	: PALE YELLOW TO YELLOW LIQUID
Odor	: FRUITY, WATERMELON ODOR
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 99 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 0.9477 (0.945 – 0.953)
Solubility	: Insoluble.
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
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
9.2. Other information	
Refractive index	: 1.455 (1.44 – 1.46)
SECTION 10: Stability and reactivity	
10.1. Reactivity	
The product is non-reactive under normal condit	ions 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 co	inditions of use.
10.4. Conditions to avoid	
None under recommended storage and handling	g conditions (see section 7).
10.5. Incompatible materials	
No additional information available	
10.6. Hazardous decomposition products	
	zardous decomposition products should not be produced.
SECTION 11: Toxicological information	tion
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
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Acute toxicity (inhalation)	: Not classified
VANILLIN (121-33-5)	
LD50 oral rat	3300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	3300 mg/kg body weight
ATE US (dermal)	2600 mg/kg body weight
D-LIMONENE (5989-27-5)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Read-across, Dermal, 7 day(s))
GAMMA-TERPINENE (99-85-4)	·
ATE US (oral)	3650 mg/kg body weight
CITRAL (5392-40-5)	
LD50 oral rat	≈ 6800 mg/kg body weight Animal: rat
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Remarks on results: other:
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Jaromogonioty	
CITRAL (5392-40-5)	
NOAEL (chronic,oral,animal/male,2 years)	60 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
CITRAL (5392-40-5)	
LOAEC (inhalation,rat,gas,90 days)	68 ppm Animal: rat, Animal sex: female
NOAEL (oral,rat,90 days)	100 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation,rat,gas,90 days)	34 ppm Animal: rat, Animal sex: female
NOAEL (subchronic,oral,animal/male,90 days)	60 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
/iscosity, kinematic	: No data available
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
SECTION 12: Ecological information	
I2.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or 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)

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VANILLIN (121-33-5)	
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)
LC50 - Fish [2]	123 mg/l Test organisms (species): Pimephales promelas
ErC50 algae	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	5.9 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
D-LIMONENE (5989-27-5)	
LC50 - Fish [1]	720 μg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	0.307 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi- static system, Fresh water, Experimental value, GLP)
LC50 - Fish [2]	702 μg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [2]	0.51 mg/l Test organisms (species): Daphnia magna
CITRAL (5392-40-5)	
LC50 - Fish [1]	6.78 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	6.8 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

VANILLIN (121-33-5)		
Persistence and degradability	Readily biodegradable in water.	
D-LIMONENE (5989-27-5)		
Persistence and degradability	Readily biodegradable in water.	
ThOD	3.29 g O ₂ /g substance	

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).
D-LIMONENE (5989-27-5)	
BCF - Fish [1]	864.8 l/kg (BCFBAF v3.01, Pisces, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.38 (Experimental value, Equivalent or similar to OECD 117, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation ($4 \le Log \text{ Kow} \le 5$).

12.4. Mobility in soil

VANILLIN (121-33-5)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.438 (log Koc, Experimental value)	
Ecology - soil	Low potential for mobility in soil.	
D-LIMONENE (5989-27-5)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.049 – 3.801 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Low potential for mobility 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.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT Not regulated

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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)

GAMMA-TERPINENE (99-85-4)

Listed on the Canadian DSL (Domestic Substances List)

CITRAL (5392-40-5)

Listed on the Canadian DSL (Domestic Substances List)

2,6-Dimethyl-5-heptenal (106-72-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

VANILLIN (121-33-5) Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances) GAMMA-TERPINENE (99-85-4) Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)

CITRAL (5392-40-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)

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15.3. US State regulations

California Proposition 65 for products falling below safe harbor levels.



This formula does contain various 100% natural essential oils, which may contain bet-mycrene, furocoumarines, benzene, and toluene, all of which are on the Prop 65 list. We believe the volume in the end product falls below the safe harbor levels designated by Prop 65 and therefore this product does not have a Prop 65 warning. Please see our letter on Prop 65 warnings.

SECTION 16: Other info	rmation	
Revision date	: 02/02/2024	
Full text of H-phrases:		
H226	Flammable liquid and vapor	
H227	Combustible liquid	
H304	May be fatal if swallowed and enters airways	
H315	Causes skin irritation	
H317	May cause an allergic skin reaction	
H319	Causes serious eye irritation	
H361	Suspected of damaging fertility or the unborn child	
H373	May cause damage to organs through prolonged or repeated exposure	

SDS US (GHS HazCom 2012) This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.