

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 | e Limits |
| 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.