

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 21-Aug-2024

Revision Number 1.01

1. Identification

Product identifier

Product Name Blood Orange Italian Extract, Natural (Tarocco Varietal)

Other means of identification

Product Code(s) SC-ITEM 583

UN number or ID number UN1197

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Food and Beverage Flavoring

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Apex Flavors, Inc.
1361 Brass Mill Rd Suite E
Belcamp, MD 21017-1239
United States
(410) 565-6600

E-mail address sds@apexflavors.com

Emergency telephone number

Company Phone Number 410-565-6600

Emergency Telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

| | |
|--|-------------|
| Flammable liquids | Category 3 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Germ cell mutagenicity | Category 1B |
| Carcinogenicity | Category 1A |
| Reproductive toxicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Specific target organ toxicity (repeated exposure) | Category 1 |

Label elements



Danger

Hazard statements

Flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.
May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary Statements - Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection and face protection.
Wash face, hands and any exposed skin thoroughly after handling.
Do not breathe dust, fume, gas, mist, vapors and spray.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.
Specific treatment (see .? on this label).

Eyes

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 and attention.

Skin

IF ON SKIN: Wash with plenty of water and soap.
If skin irritation occurs: Get medical advice and attention.
Take off contaminated clothing and wash it before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements - Storage

Store locked up.
Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant.

Other information

Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

| Chemical name | CAS No. | Weight-% | Hazardous Material Information Review | Date HMIRA filed and date exemption |
|---------------|---------|----------|---------------------------------------|-------------------------------------|
|---------------|---------|----------|---------------------------------------|-------------------------------------|

| | | | Act registry number (HMIRA registry #) | granted (if applicable) |
|--|---------|---------------|---|-------------------------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER | 64-17-5 | 30.00 - 70.00 | - | - |

4. First-aid measures

Description of first aid measures

| | |
|---|---|
| General advice | Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention. |
| Inhalation | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. |
| Skin contact | Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists. |
| Ingestion | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician. |
| Self-protection of the first aider | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). |

Most important symptoms and effects, both acute and delayed

| | |
|----------------------------|---|
| Symptoms | May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
| Effects of Exposure | May cause cancer. May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. Mutagenic effects. Causes damage to organs through prolonged or repeated exposure. |

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|---------------------------|------------------------|

5. Fire-fighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |
| Specific hazards arising from the chemical | No information available. |
| Explosion data | |
| Sensitivity to mechanical impact | None. |
| Sensitivity to static discharge | None. |

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Control parameters
Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|--|----------------|---|---|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5 | STEL: 1000 ppm | TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³ | IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³ |

| Chemical name | Alberta | British Columbia | Ontario | Quebec |
|--|---|------------------|----------------|---|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5 | TWA: 1000 ppm TWA: 1880 mg/m ³ | STEL: 1000 ppm | STEL: 1000 ppm | TWA: 1000 ppm TWA: 1880 mg/m ³ |

Appropriate engineering controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid
Appearance Liquid
Color Dark Orange
Odor Orange
Odor threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--|----------------------|--------------------------------|
| pH | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Initial boiling point and boiling range | No data available | None known |
| Flash point | 26 C. 78 F. | None known |
| Evaporation rate | No data available | None known |
| Flammability | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Relative vapor density | No data available | None known |
| Relative density | 0.939 - 0.9660 | None known |
| Water solubility | Soluble in water | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |

Other information

Explosive properties No information available
Oxidizing properties No information available
Softening point No information available

| | |
|------------------------|--------------------------|
| Molecular weight | No information available |
| VOC content | No information available |
| Liquid Density | No information available |
| Bulk density | No information available |
| Specific Gravity @ 25C | 0.9360 - 0.9660 |
| Specific Gravity @ 20C | 0.939 - 0.969 |
| Refractive Index @ 20C | 1.366 - 1.396 |

10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | No information available. |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | None known based on information supplied. |
| Incompatible materials | Strong acids. Strong bases. Strong oxidizing agents. |
| Hazardous decomposition products | None known based on information supplied. |

11. Toxicological information

Information on likely routes of exposure

Product Information

| | |
|--------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness. |
| Eye contact | Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain. |
| Skin contact | Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). |
| Ingestion | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------|--|
| Symptoms | Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
|----------|--|

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

| | |
|-------------------------------|-----------------|
| ATEmix (oral) | 12,566.80 mg/kg |
| ATEmix (dermal) | 99,999.00 mg/kg |
| ATEmix (inhalation-gas) | 99,999.00 ppm |
| ATEmix (inhalation-vapor) | 99,999.00 mg/l |
| ATEmix (inhalation-dust/mist) | 117,826.10 mg/l |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|--------------------|-------------|------------------------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5 | 7060 mg/kg (Rat) | - | 124.7 mg/L (Rat) 4 h |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|---|
| Skin corrosion/irritation | Classification based on data available for ingredients. Causes skin irritation. |
| Serious eye damage/eye irritation | Classification based on data available for ingredients. Causes serious eye irritation. |
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects. |
| Carcinogenicity | Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer. |

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|--|-------|---------|-------|------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5 | A3 | Group 1 | Known | X |

Legend

- ACGIH (American Conference of Governmental Industrial Hygienists)**
A3 - Animal Carcinogen
- IARC (International Agency for Research on Cancer)**
Group 1 - Carcinogenic to Humans
- NTP (National Toxicology Program)**
Known - Known Carcinogen
- Occupational Safety and Health Administration of the US Department of Labor**
X - Present

| | |
|---------------------------------|---|
| Reproductive toxicity | Classification based on data available for ingredients. May damage fertility or the unborn child. |
| STOT - single exposure | May cause respiratory irritation. May cause drowsiness or dizziness. |
| STOT - repeated exposure | Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | No information available. |

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|----------------------|--|----------------------------|--|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER | - | 12.0 - 16.0: 96 h Oncorhynchus mykiss | - | 9268 - 14221: 48 h Daphnia magna mg/L |

| | | | | |
|---------|--|---|--|---|
| 64-17-5 | | mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through | | LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static |
|---------|--|---|--|---|

Persistence and degradability No information available.

Bioaccumulation

Component Information

| Chemical name | Partition coefficient |
|--|-----------------------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5 | -0.32 |

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

California waste information This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT

UN number or ID number UN1197
 Proper shipping name Extracts, flavoring, liquid
 Transport hazard class(es) 3
 Packing group III
 DOT Marine Pollutant I
 Marine pollutant ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER
 Description UN1197, Extracts, flavoring, liquid, 3, III, Marine pollutant (ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER)
 Special Provisions B1, IB3, T2, TP1
 Emergency Response Guide Number 127

TDG

UN number or ID number UN1197
 UN proper shipping name Extracts, flavouring, liquid
 Transport hazard class(es) 3
 Packing group III
 Marine pollutant name ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER.
 Description UN1197, Extracts, flavouring, liquid, 3, III

MEX

UN number or ID number UN1197

UN proper shipping name Extracts, flavouring, liquid
 Transport hazard class(es) 3
 Packing group III
 Description UN1197, Extracts, flavouring, liquid, 3, III
 Special Provisions 223

ICAO (air)

UN number or ID number UN1197
 UN proper shipping name Extracts, liquid
 Transport hazard class(es) 3
 Packing group III
 Description UN1197, Extracts, liquid, 3, III
 Special Provisions A3

IATA

UN number or ID number UN1197
 UN proper shipping name Extracts, liquid
 Transport hazard class(es) 3
 Packing group III
 ERG Code 3L
 Special Provisions A3
 Description UN1197, Extracts, liquid, 3, III

UN number or ID number UN1197
 UN proper shipping name Extracts, liquid
 Transport hazard class(es) 3
 Packing group III
 EmS-No. F-E, S-D
 Special Provisions 223, 955
 Marine pollutant P
 Description UN1197, Extracts, liquid (ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER), 3, III, (0°C c.c.), Marine pollutant

15. Regulatory information

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA Contact supplier for inventory compliance status.

| Chemical name | CAS No. | Inventory Listing Status | Commercial Activity Designation |
|---|-----------|--------------------------|---------------------------------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER | 64-17-5 | - | Unknown * |
| WATER | 7732-18-5 | Present | Active |
| Limonene | 5989-27-5 | - | Unknown * |

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

| | |
|----------------------|---|
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |
| KECL | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AIIC | Contact supplier for inventory compliance status. |
| NZIoC | Contact supplier for inventory compliance status. |

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AIIC** - Australian Inventory of Industrial Chemicals
- NZIoC** - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals: Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage

| Chemical name | California Proposition 65 |
|---|-----------------------------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER - 64-17-5 | Carcinogen Developmental |

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|--|------------|---------------|--------------|
| ETHYL ALCOHOL 190 PROOF FOOD GRADE/KOSHER 64-17-5 | X | X | X |
| WATER 7732-18-5 | - | - | X |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

| | | | | |
|-------------|--------------------|----------------|--------------------|-----------------------|
| <u>NFPA</u> | Health hazards 2 | Flammability 0 | Instability 0 | Special hazards - |
| <u>HMIS</u> | Health hazards 2 * | Flammability 0 | Physical hazards 0 | Personal protection X |

Key or legend to abbreviations and acronyms used in the safety data sheet

| | | | |
|--|-----------------------------|------|----------------------------------|
| <u>Legend Section 8: Exposure controls/personal protection</u> | | | |
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | Sk* | Skin designation |
| + | Sensitizers | | |

Key literature references and sources for data used to compile the SDS

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- U.S. National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 21-Aug-2024

Revision Note No information available.

Disclaimer

WARNING/DISCLAIMER:

Our ingredients have not been tested, nor have they been determined safe, for inhalation or use in any electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes, or other similar devices (collectively "E-Cigarettes") or in any E-Liquids used with E-Cigarettes. By receiving Apex Flavors, Inc ingredients, the recipient confirms that they will not use these ingredients in connection with the manufacture and distribution of E-Cigarettes, E-Liquids or any component thereof. WE DISCLAIM, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL WARRANTIES, EXPRESS OR IMPLIED, and disclaim all liability in connection with the use of our ingredients in connection with E-Cigarettes and E-Liquids. All such risks are assumed by you and the user.

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet