

**SDS, Safety Data Sheet
GWT Network Inc.
Food Grade D-Limonene
January 21, 2020**

Section 1: Identification

Product Identifier

Product Name: Food Grade d-Limonene

Product Codes: FGDL

Synonym(s): Food grade d-Limonene; Citrus stripper oil; Fractions derived from distillation of cold pressed orange oil; Terpene Hydrocarbons.

Relevant identified uses of the substances or mixture and uses advised against

General use: General purpose cleaner/degreaser

Uses advised against: None known

Details of the supplier and of the safety data sheet

Distributor/Manufacturer

GWT Network Inc.

PO Box 124

Fort Lauderdale, FL

33311

Email: info@naturesorange.com Website: www.naturesorange.com

Emergency Contact Information: 1-800-424-9300

Section 2: Hazard(s) Identification

Product definition: Substance

Classification in accordance with 28 CFR 1910 (OSHA HCS)

Flammable, Liquid – Category 3 [226]

Skin Irritation – Category 2 [315]

Skin Sensitizer – Category 1 [H317]

Chronic Aquatic – Category 1 [H410]

Label Elements

Hazard Symbol(s): GHS07, GHS02, GHS09



Signal Word: Warning

GHS Hazard Statement(s):

- H226: Flammable liquid and vapor
- H315: Causes skin irritation
- H317: May cause allergic skin reaction
- H410: Very toxic to aquatic life with long lasting effects

GHS Preventive Precautionary Statements:

- P210: Keep away from heat, sparks, open flames and hot surfaces. No smoking.
- P233: Keep container tightly closed.
- P240: Ground and bond container and receiving equipment.
- P241: Use explosion-proof electrical, ventilating, lighting and mixing equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measure against static discharge.
- P261: Avoid breathing mists, vapors and spray.
- P264: Wash hands or other skin areas contacting this product thoroughly after handling.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P273: Avoid release to the environment.
- P280: Wash thoroughly after handling/wear protective gloves, eye, face protection

GHS Responsive Precautionary Statements:

- P370 + P378: In case of fire: Use water fog, foam dry chemical, or carbon dioxide for extinction.
- P303 + P361 + P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.
- P321: Specific treatment: Refer to Section 4 of this SDS and seek medical attention.
- P333 + P313: If skin irritation or rash occurs: Get medical attention.
- P362: Take off contaminated clothing and wash before reuse.
- P391: Collect spillage.
- P403 + P233 + P235: Store in well-ventilated place. Keep container tightly closed. Keep cool.
- P501: Dispose of contents and container in accordance with national and local regulations.

Section 3. Product Composition

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
> 95	d-Limonene	94266-27-4	-----	-----	H226, H315, H317 H410

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

Section 4. First Aid Measures

Eye Contact: Remove contact lenses at once. Flush with water for at least 15 minutes. If irritation persists, seek medical attention.

Skin Contact: Wash affected area with copious amounts of soap and water. If irritation develops, seek medical attention.

Inhalation: If symptoms of overexposure are experienced, move to fresh air. If symptoms persists, seek medical attention.

Ingestion: Seek medical attention immediately. DO NOT induce vomiting. Rinse mouth with water. DO NOT administer anything by mouth to an unconscious person. DO NOT leave victim unattended.

General: As with any chemical, employees should thoroughly wash hands with soap and water after handling this material.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media: Carbon Dioxide, foam or dry chemical. Caution: Carbon dioxide will displace air in confined spaces and may create an oxygen deficient atmosphere.

Unsuitable Extinguishing Media: Water.

Products of Combustion: Forms acrid fumes, carbon monoxide, and carbon dioxide.

Protection of Firefighters: Vapors may be irritating to eyes, skin, and respiratory tract. Firefighters should wear self-containing breathing apparatus (SCBA) and full fire-fighting turnout gear.

Section 6. Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8. Product is slippery when spilled. Isolate the hazard area. Deny entry to unnecessary and unprotected personnel.

Environmental Precautions: Keep out of drains, sewers, ditches and waterways.

Methods for Containment: Dike spill area and cap leaking containers as necessary to prevent further spreading of spilled material. Absorb spilled liquid with suitable material such as dirt or sand.

Methods for Clean Up: Eliminate all ignition sources. Use equipment rated for use around combustible materials. Oil soaked rags may spontaneously combust; place in appropriate disposal container.

Other Information: There are no special reporting requirements for spills of this material.

Section 7. Handling and Storage

Precautions for safe handling

Observe label precautions. Wear all appropriate protective equipment specified in Section 8. Keep containers closed when not in use.

Advice on protection against fire and explosion

Keep away from heat, sparks, open flames and hot surfaces. No smoking. To avoid fire or explosion, dissipate static electricity by grounding and bonding containers and equipment before transferring material.

Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) food and drink. Transfer only in approved container having correct labeling. Keep containers tightly closed. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Containers of this material may be hazardous when empty as they may retain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

Specific end uses

Apart from the uses mentioned in Section 1, no other specific uses are stipulated.

Section 8. Exposure Controls/Personal Protection**Control parameters**

Contains no substances with occupational exposure values.

Exposure controls

Engineering Measures: Technical measure and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentration and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with unperforated side shields during use. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

Hand Protection: Wear gloves recommended by glove supplier for protection against materials in section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Other protective equipment: Protective clothing. Protective boots, if the situation requires.

Respiratory Protective: None required with normal use. Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridge as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Environmental exposure controls: Do not empty into drains.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: Clear, colorless liquid

Odor Citrus

Odor Threshold 200 ppb

Molecular Weight N/A

Chemical Formula N/A

pH Not determined

Melting Point, Range -96°C (-140.8°F)

Initial Boiling Point 154.4 – 166.7°C (310 – 332°F)

Evaporation Rate 0.2 (n-BuAc =1)

Flammability (solid, gas) N/A

Flash Point 46°C (115°F) TCC

Auto ignition Temperature 237°C (458°F)

Decomposition Temperature No data available

Lower Explosive Limit (LEL) 0.7%

Upper Explosive Limit (UEL) 6.1%

Vapor Pressure <2 mm Hg @ 22°C

Vapor Density No data available

Specific Gravity 0.838 – 0.843

Viscosity 0.923 cp @ 25°C

Solubility in water <1g/100 ml

Partition Coefficient: n-octanol/water 4 – 5

Volatiles by Volume @ 21°C >95%

No other data available.

Section 10. Stability and Reactivity

Reactivity: No special reactivity has been reported.

Chemical Stability: Product is stable under normal storage and handling instructions. Possibility of **hazardous reactions:** None known. Hazardous polymerization does not occur.

Conditions to Avoid: Extreme temperatures. Contact with incompatible materials. Chemical

Incompatibility: Strong acids, strong bases, strong oxidizing agents, reactive chemicals Incompatible

Materials: Strong oxidizing agents

Hazardous Decomposition Products: Thermal products of decomposition include oxides of carbon.

Section 11. Toxicology Information

Toxicity Information in individual form:

d-Limonene CAS#: 94266-27-4

Acute oral toxicity: LD50: 5,300 mg/kg

Acute inhalation toxicity: LC50, Mouse: 67,500 mg/m³

Acute dermal toxicity: LD50, Rabbit: >5,000 mg/kg

Skin irritation: Causes skin irritation

Eye irritation: May cause eye irritation

Sensitization: Can cause allergic reaction and sensitization; may cause allergic respiratory reaction

Genotoxicity: No data available

Mutagenicity: No data available

Specific organ toxicity – single exposure: No data available

Specific organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Additional Information:

Terpene Hydrocarbons: IARC, Group 3 carcinogen – Not classifiable as to its carcinogenicity to humans - Not listed as a carcinogen by ACGIH, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this material in humans, nor is there available data that indicated that it causes adverse developmental or fertility effects in humans. Handle in accordance with good industrial hygiene and safety practice.

Section 12. Ecological Information

Toxicity

Terpene Hydrocarbons are very toxic to aquatic life and may cause long term effects in the environment.

Acute and prolonged toxicity to fish: LC50: Pimephales promelas (Fathead minnow) 96 h: .072 mg/l

Acute toxicity to aquatic invertebrates: EC 50: Daphnia pulex (Water flea), 48 h: 69.6 mg/l

Persistence and degradability

Material is expected to be readily biodegradable.

Bioaccumulation potential

This material has the potential to bioaccumulate.

Mobility in soil

Terpene Hydrocarbons absorb to soil and have low mobility.

Results of PBT and vPvB assessment

This material is not identified as a PBT substance.

Section 13. Disposal Considerations

Methods of disposal: The generation of waste should be avoided or minimized whenever possible.

Empty containers or liners may retain some product residue. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of split material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste: The classification of this product may meet the criteria for a hazardous waste.

Section 14. Transport Information



Note: Transportation information is provided for reference only; consumer is recommended to consult with 49 CFR parts 100-177 for shipping specifics including packaging materials, container sizes and methods of shipping.

U.S. DOT

Proper Shipping Name: Terpene Hydrocarbons, n.o.s.

Hazard Class: 3

UN/NA: 2319

NAERG: Guide #128

Packaging Authorization: Non-Bulk: 49 CFR 173.203; Bulk: 173.242

Packaging Exceptions 49 CFR 173.150

IMO/IMDG

Proper Shipping Name: Terpene Hydrocarbons, n.o.s.

Hazard Class: 3

UN/NA: 2319

Packing Group III

Marine Pollutant YES

EMS Number F-E, S-D

ICAO/IATA

Proper Shipping Name: Terpene Hydrocarbons, n.o.s.

Hazard Class: 3

UN/NA: 2319

Packing Group III

Quantity Limitations 49 CFR 175.27 and 175.75 – Cargo Aircraft Only: 220 l;

Passenger Aircraft/rail: 60 l

RID/ADR

Proper Shipping Name: Terpene Hydrocarbons, n.o.s.

Hazard Class: 3

UN/NA: 2319

Packing Group III

Section 15. Regulatory Information

U.S. Federal Regulations:

OSHA Hazard Communication Standard: This material is classified as hazardous according to OSHA 29 CFR 1910.1200.

OSHA Process Safety Management Standard: This material is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This material is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

TSCA Status: Food Grade d-Limonene (CAS #94266-27-4) is exempt from listing on the TSCA Inventory as it is a natural occurring material and is intended for use in applications regulated by the Food and Drug Administration in the United States. It is not subject to TSCA 12(b) Export Notification.

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories Information: This product does not contain any chemical components which are subject to the reporting requirements of Section 311/312 of the Emergency Planning and Community Right-to-Know Act of 1986.

SARA 313 Information: None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: No components of this product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notation: No components of the product are subject to the reporting requirements of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): No components of the product exceed the threshold (de minimis) reporting levels for hazardous wastes established by CERCLA.

Clean Air Act (CAA)

This product does not contain any chemicals listed as a Hazardous Air Pollutant (HAP) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depletors.

This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)

None of the chemicals in this product are listed as Hazardous Substances under CWA.

Terpene Hydrocarbons are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:

This product contains no chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

Other U.S. State Inventories

This product is not listed on any State Hazardous Substance Inventories, Right-to-Know lists or Air Quality/Air Pollutants lists.

Canada:

WHMIS Hazard Symbol and Classification

B-3 – Flammable liquid with flash points greater than 38 °C (100°F) but inferior to 93°C (199.4°F).

D2B – Toxic material causing other toxic effects – skin irritation; skin sensitization

Canadian National Pollutant Release Inventory (NPRI): Terpenes (all isomers) are listed on the NPRI.

European Economic Community

Labeling (67/548/EEC to 1999/45/EC): None allocated

Xi – Irritant N – Dangerous for the environment

Risk Phrases: R10 – Flammable

R38 – Irritating to skin

R43 – May cause sensitization by contact.

R50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S2 – Keep out of the reach of children

S24 – Avoid contact with skin.

S37 – Wear suitable gloves.

S60 – This material and its container must be disposed of as hazardous waste.

WGK, Germany (Water danger/protection): 3

Chemical safety assessment

For this product a chemical safety assessment was not carried out.

Section 16. Additional Information

Hazardous Material Information System (HMIS)

HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

HMIS and NFPA Hazard Rating Legend

* = Chronic Health Hazard	2 = MODERATE
0 = INSIGNIFICANT	3 = HIGH
1 = SLIGHT	4 = EXTREME

Safety Glasses

Gloves

Protective Apron

National Fire Protection Association (NFPA)



Health: 1
Flammability: 2
Instability: 0
Special:

The information herein is given in good faith and is believed to be accurate and correct; however, no warranty, expressed or implied, is made. GWT Network Inc. assumes no responsibility for personal injury or property damage that may arise from the use of this material since the conditions of handling and use are beyond our control. It is the responsibility of the user to comply with all Federal, State and local laws and regulations regarding use of this product. Vendees or users assume all risks associated with the use of this material.