

This brief provides a general overview of the **Safety Data Sheet** requirements in the Hazard Communication Standard OSHA's 29 CFR 1910.1200(g) and Appendix D of 29 CFR 1910.1200.

Section 1 ~ Identification

| | |
|---|--|
| Identity (As Used On Label and List) K387 Natural Way | Date Prepared: 05-06-2018 |
| Company Information: KAYLINE COMPANY | Emergency Telephone Number: 1-800-535-5053 |
| Address (Number, Street, Suite/Apt#) P.O. Box 603207 | Telephone Number for Information: 1-800-426-5820 |
| (City, State, and Zip Code) Cleveland, OH 44103 | Signature of Prepare (Optional) REGULATORY DEPT. |

Section 2 ~ Hazard(s) Identification

| | | | |
|------------------------------|---|----------------------|--|
| GHS-US Classification | Flam. Liq. 4 Skin Irrit. 2 Skin Sens. 1 | H227 H315 H317 | Full text of H-phrase: See section 16 |
| GHS-US Labelling | | | Signal Word (GHS-US) Warning |

Hazard pictograms (GHS-US)



GHS07

Hazard Statement (GHS-US)
Combustible liquid.
Causes skin irritation.
May cause an allergic skin reaction.

Precautionary Statement Keep away from heat, sparks, open flames, No smoking. - No smoking. Avoid breathing mist, spray, vapors. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves, eye protection, face protection. **If on skin:** Wash with plenty of Wash off with soap and plenty of water. Specific treatment (See first aid section of this material safety data sheet on this label). **If skin irritation occurs:** Get medical advice/attention. **If skin irritation or rash occurs:** Get medical advice/attention. Take off contaminated clothing and wash before reuse. **In case of fire:** Use Suitable extinguishing media to extinguish. Store in a well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal plant.

Other Hazards No additional information available.

Unknown Acute Toxicity (GHS-US) Not applicable.

Section 3 ~ Composition/Information on Ingredients

| Components (Specific Chemical Identity, Common Name(s)) | CAS No. | GHS-US Classification | %(Wt.) |
|---|-----------|---|----------|
| D-Limonene | 5989-27-5 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | 89 – 92% |

Substances: Not applicable.

Full text of H-phrase: See section 16.

Section 4 ~ First Aid Measures

Description of First Aid Measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Gently wash with plenty of soap and water. Get medical advice/attention. Specific treatment (see first aid section on this label, on this label).

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms/injuries after inhalation: May cause an allergic skin reaction.

Symptoms/injuries after skin contact: Causes skin irritation.

Indication of any immediate medical attention and special treatment needed: No additional information available.

Section 5 ~ Fire Fighting Measures

Extinguishing Media

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

Unsuitable extinguishing media: Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Fire hazard: Flammable liquid and vapor.

Explosion hazard: May form flammable/explosive vapor-air mixture.

Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Section 6 ~ Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

For Non-Emergency Personnel

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area

Environmental Precautions: Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods And Material For Containment And Cleaning Up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Reference to other sections: See Heading 8. Exposure controls and personal protection.

Section 7 ~ Handling and Storage

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing mist, spray, vapors.

Hygiene Measures: Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep only in the original container in a cool, well ventilated place away from: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed.

Incompatible Products: Strong bases. Strong acids.

Incompatible Materials: Sources of ignition. Direct sunlight. Heat sources.

Specific End Use(S): No additional information available

Section 8 ~ Exposure Controls/Personal Protection

Control Parameters

Natural Way

ACGIH
OSHA

Not applicable
Not applicable

D-Limonene (5989-27-5)

ACGIH
OSHA

Not applicable
Not applicable



Personal Protective Equipment: Safety glasses.

Gloves.

Respiratory Protection: Wear appropriate mask.

Skin and Body Protection Other: Wear suitable protective clothing.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Other Information: Do not eat, drink or smoke during use.

Section 9 ~ Physical Chemical Properties

| | | | |
|--|---|--|--|
| Boiling Point | 310 | Viscosity | No Data Available |
| Vapor Pressure | No Data Available | Melting/Freezing Point | No Data Available |
| Relative Density | 0.85 | Evaporation Rate (Butyl Acetate = 1) | No Data Available |
| Relative vapor density at 20° C | 4.9 | pH | No Data Available |
| Solubility: | Water: Solubility in water of component(s) of the mixture: • D-limonene: insoluble • nonylphenoxy poly (ethyleneoxy) Ethanol: soluble | | |
| Appearance and Odor: | Orange liquid with Citrus scent. | Log Pow Log Kow | No Data Available No Data Available |
| Flash Point: 145 | Auto - Ignition Temperature: No Data Available | Lower Flammability Level: No Data Available | Upper Flammability Level: No Data Available |

Other Information: No additional information available

Section 10 ~ Stability and Reactivity

Reactivity: No additional information available.

Chemical Stability: Flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

Possibility of Hazardous Reactions: Not Established.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

Incompatible Materials: Strong acids. Strong bases.

Hazardous Decomposition products: Carbon monoxide. Carbon dioxide. May release flammable gases.

Section 11 ~ Toxicological Information

Information on Toxicological Effects

Acute toxicity: Not classified.

D-Limonene

LD50 Oral Rat 4400 mg/kg bodyweight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Literature study; > 2000 mg/kg bodyweight; Rat; Read-across)

LD50 Dermal Rabbit > 5000 mg/kg bodyweight (Rabbit; Weight of evidence; Equivalent or similar to OECD 402)

ATE US (Oral) 4400.000 mg/kg bodyweight

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

D-Limonene (5989-27-5)

IARC Group 3 – Not Classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (single exposure): Not classified.

Specific Target Organ Toxicity (repeated exposure): Not classified.

Aspiration Hazard: Not classified.

Potential Adverse Human Health Effects and Symptoms: Based on available data, the classification criteria are not met.

Symptoms/Injuries After Inhalation: May cause an allergic skin reaction.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Section 12 ~ Ecological Information

Toxicity

D-Limonene (5989-27-5)

LC50 fish 1 720 µg/l (96 h; Pimephales promelas; Lethal)

EC50 Daphnia 1 0.36 mg/l (48 h; Daphnia magna; GLP)

LC50 fish 2 702 µg/l (96 h; Pimephales promelas)

Threshold limit algae 1 150 mg/l (72 h; Desmodesmus subspicatus; GLP)

Threshold limit algae 2 2.62 mg/l (72 h; Desmodesmus subspicatus)

Persistence and degradability

Natural Way

Persistence and degradability Not established

D-Limonene (5989-27-5)

Persistence and degradability Readily biodegradable in water. Forming sediments in water. Absorbs into the soil. Not established.

ThOD 3.29 g O₂/g substance

Bioaccumulative potential

Natural Way

Bioaccumulative potential Not established.

D-Limonene (5989-27-5)

BCF fish 1 864.8 - 1022 (Pisces; Fresh weight)

Log Pow 4.38 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 37 °C)

Bioaccumulative potential Potential for bioaccumulation (4 ≥ Log Kow ≤ 5). Not established.

Mobility in Soil: No additional information available.

Other Adverse Effects

Effect on the global warming: No known ecological damage caused by this product.

Other information: Avoid release to the environment.

Section 13 ~ Disposal Considerations

Waste Treatment Methods

Waste Disposal Recommendations: Dispose in a safe manner in accordance with local/national regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology - Waste Materials: Avoid release to the environment.

Section 14 ~ Transport Information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information: No supplementary information available.

ADR: No additional information available

Transport by sea

Proper Shipping Name (IMDG): TERPENE HYDROCARBONS, N.O.S.

Air transport

Proper Shipping Name (IATA): Terpene hydrocarbons, n.o.s.

Section 15 ~ Regulatory Information

US Federal Regulations

Natural Way: Not listed on the United States TSCA (Toxic Substances Control Act) inventory

D-limonene (5989-27-5): Listed on the United States TSCA (Toxic Substances Control Act) inventory

International Regulations

CANADA: No additional information available

EU-Regulations: No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]: No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]: Not classified

National regulations: No additional information available

US State Regulations: No additional information available.

Section 16 ~ Other Information

Revision date: 05-06-2018 **Other information:** None

Full text of H-phrases:

| | |
|-------------------|--|
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1. |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1. |
| Flam. Liq. 3 | Flammable liquids, Category 3. |
| Flam. Liq. 4 | Flammable liquids, Category 4. |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2. |
| Skin Sens. 1 | Sensitization — Skin, category 1. |
| H226 | Flammable liquid and vapor. |
| H227 | Combustible liquid. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

| | NFPA | HMIS | Key |
|------------------|------|------|-------------------------|
| HEALTH | 1 | 2 | 4= Severe |
| FLAMMABILITY | 1 | 2 | 3= Serious |
| REACTIVITY | 1 | 1 | 2= Moderate |
| OTHER/PROTECTION | - | B | 1= Slight 0= Minimal |

B= Safety glasses, gloves.

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