

# SAFETY DATA SHEETS

**This SDS packet was issued with item:**

077176886

N/A

## SAFETY DATA SHEET

### Section 1. Product And Company Identification

**Product Name:** Laboratory Solitine

**Product Use:** Dental product: Cleaning of medical devices

**Manufacturer:** Kerr Corporation  
1717 W. Collins Ave.  
Orange, CA 92867-5422  
U.S.A.

**Information Phone Number:** 1-800-841-1428 (Customer Service)

**Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):**  
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

**SDS Date of Preparation/Revision:** August 6, 2019

### Section 2. Hazards Identification

**GHS Classification:**

Flammable Liquid Category 3  
Aspiration Hazard Category 1

**Label Elements:**

Danger!



**Hazard Phrases**

Flammable liquid and vapor.  
May be fatal if swallowed and enters airways.

**Precautionary Phrases:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wear protective gloves, protective clothing, eye protection, face protection.  
If skin irritation or rash occurs: Get medical advice/attention.  
IF SWALLOWED: Immediately call a doctor, a POISON CENTER. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
Store in a well ventilated place.  
Store locked up.  
Dispose of contents and container in accordance with local and national regulations.

**Section 3. Composition/Information on Ingredients**

Component	CAS No.	Amount
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	923-037-2	60-100%

**Section 4. First Aid Measures**

**Inhalation:** Immediately remove victim to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

**Skin Contact:** Wash thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Remove and launder contaminated clothing before re-use.

**Eye Contact:** Rinse thoroughly with water. Get medical attention if irritation occurs and persists.

**Ingestion:** Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. Keep the victim calm and warm. Get immediate medical attention.

**Most important symptoms and effects, acute and delayed:** May be fatal if swallowed and enters airways. Skin contact may cause dryness and irritation.

**Indication of immediate medical attention and special treatment, if needed:** Immediate medical attention is not required.

**Section 5. Fire Fighting Measures**

**Suitable (and Unsuitable) Extinguishing Media:** Use any media appropriate for the surrounding fire. Cool fire exposed containers with water.

**Specific Hazards Arising from the Chemical:** Combustion may produce carbon dioxide and carbon monoxide.

**Special Protective Equipment and Precautions for Fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored. Cool fire-exposed containers with water.

**Section 6: Accidental Release Measures**

**Personal precautions, Protective equipment, and Emergency procedures:** Evacuate spill area and keep unprotected personnel away. Avoid contact with eyes, skin and clothing. Wear appropriate protective clothing and equipment. Avoid breathing vapor or mist.

**Environmental Precautions:** Avoid releases to the environment. Report spill as required by local and federal regulations.

**Methods and Materials for Containment and Cleaning up:** For large spills, scoop solid spill into closing containers. Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

## Section 7. Handling and Storage

**Precautions for Safe Handling:** Prevent contact with eyes, skin and clothing. Avoid prolonged contact with skin and clothing. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke in the work area. Do not breathe dust or vapors. Use with adequate ventilation. Remove and wash contaminated clothing before reuse.

Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

**Conditions for Safe Storage, Including any Incompatibilities:** Store in a cool, dry, well-ventilated area away from direct sunlight. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

## Section 8. Exposure Controls / Personal Protection

### Exposure Limits

Chemical	Exposure Limit
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	None Established

**Appropriate Engineering Controls:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, an approved respirator with an organic vapor cartridge or supplied air respirator is recommended. Select in accordance with applicable regulations and good industrial hygiene practice.

**Hand protection:** Impervious gloves such as butyl rubber or nitrile may be used to avoid prolonged skin contact.

**Eye Protection:** Chemical safety goggles are recommended if contact is possible.

**Skin Protection:** Wear protective clothing as needed to avoid skin contact and contamination of personal clothing.

**Hygiene measures:** Suitable eye and skin washing facilities should be available in the work area.

## Section 9. Physical and Chemical Properties

<b>Appearance:</b>	Colorless liquid	<b>Odor:</b>	Mildly mineral oil
<b>Odor Threshold:</b>	Not available	<b>pH:</b>	Not available
<b>Melting/Freezing Point:</b>	Not available	<b>Boiling Point/Range:</b>	155°C - 175°C (311°F - 347°F)
<b>Flash Point:</b>	Closed cup: 43°C (109.4°F) [ASTM D-93]	<b>Evaporation Rate:</b>	Not available
<b>Flammability: (Solid,</b>	Not applicable	<b>Flammability</b>	LEL: < 1 vol %

<b>Gas)</b>		<b>Limits:</b>	UEL: 6.5 - 7 vol %
<b>Vapor Pressure:</b>	Not available	<b>Vapor</b>	Not available
		<b>Density:</b>	
<b>Relative Density:</b>	0.75	<b>Solubilities:</b>	Insoluble in cold water Soluble in organic solvents
<b>Partition Coefficient:</b>	Not available	<b>Autoignition</b>	Not available
<b>(N-Octanol/Water)</b>		<b>Temperature:</b>	
<b>Decomposition</b>	Not available	<b>Viscosity:</b>	Kinematic: 0.9 mm <sup>2</sup> /s (at 40°C)
<b>Temperature:</b>			

## Section 10. Stability and Reactivity

**Reactivity:** The product is not expected to be reactive.

**Chemical Stability:** Stable under normal storage and handling conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to avoid:** Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**Incompatible Materials:** Oxidizing materials.

**Hazardous decomposition products:** None if stored normally.

## Section 11. Toxicological Information

**Potential Health Effects:**

**Inhalation:** None known.

**Skin Contact:** May cause skin irritation with dryness or cracking of the skin.

**Eye Contact:** None known.

**Ingestion:** Maybe fatal if swallowed and enters airways.

**Chronic Hazards:** Prolonged or repeated contact can lead to skin irritation, cracking and/or dermatitis.

**Skin Sensitization:** No adverse effects expected. This product is not expected to cause skin sensitization.

**Germ Cell Mutagenicity:** None of the components have shown mutagenic activity in animal studies.

**Carcinogen:** None of the components are listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

**Developmental / Reproductive Toxicity:** None of the components have been shown to cause reproductive or developmental toxicity.

**Specific Target Organ Toxicity (Single Exposure):** No data available.

**Specific Target Organ Toxicity (Repeated Exposure):** No data available.

**Aspiration Toxicity:** Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics is categorized as an aspiration hazard category I.

**Acute Toxicity Values:**

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics: LD50 Oral rat: >5000 mg/kg;  
LD50 Dermal rabbit: >5000 mg/kg

**Section 12. Ecological Information**

**Toxicity:**

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics: 96 hr LC50 Oncorhynchus mykiss >1000 mg/L;  
72 hr EC50 Pseudokirchnerella subcapitata >1000 mg/L; 48 hr EC50 Daphnia magna > 1000 mg/L

This product is classified as hazardous to the aquatic environment. Releases to the environment should be avoided.

**Persistence and degradability:** Biodegradation is not applicable to inorganic substances.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** No data available.

**Section 13. Disposal Considerations**

**Disposal:** For unused solution, flush thoroughly with large quantities of water into sewage disposal system in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.

**Container Disposal:** Rinse empty container thoroughly with water and discard clean, empty container as general trash or offer for recycling, if available.

**Section 14. Transport Information**

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
<b>US DOT</b>	UN3295	Hydrocarbons, liquid, n.o.s.	3	III	None
<b>Canada TDG</b>	UN3295	Hydrocarbons, liquid, n.o.s.	3	III	None
<b>IMDG</b>	UN3295	Hydrocarbons, liquid, n.o.s.	3	III	None
<b>IATA/ICAO</b>	UN3295	Hydrocarbons, liquid, n.o.s.	3	III	None

**Section 15. Regulatory Information**

**U.S. Federal Regulations:**

**EPA SARA 311/312 Hazard Classification:** Refer to Section 2 for OSHA Hazard Classification.

**EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):** None

**Protection Of Stratospheric Ozone:** This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

**CERCLA SECTION 103:** This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**US EPA TSCA Inventory:** All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

### **Canadian Regulations:**

**Canadian Environmental Protection Act:** All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

**National Pollutant Release Inventory (NPRI):** This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None.

### **International Inventories**

**Australia:** All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

**China:** All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

**European Union:** All the components in this product are listed on the EINECS inventory or exempt.

**Korea:** All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

**New Zealand:** All of the components in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempt.

<b>Section 16. Other Information</b>
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NFPA Rating: Fire: 2                      Health: 0                      Instability: 0

**Effective Date:** August 6, 2019

**Supersedes Date:** March 28, 2014

**Revision Summary:** All Sections – New SDS format

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, KERR Corporation makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.

### Section 1. Identification

GHS product identifier : SOLITINE  
 Other means of identification : Not available.  
 Product type : Liquid.

**Relevant identified uses of the substance or mixture and uses advised against**

Product use : Dental Products: Cleaning of medical devices  
 Area of application : Professional applications.

Manufacturer : **Kerr Corporation**  
 1717 West Collins Avenue  
 Orange, CA 92867-5422  
 Telephone no.: 1-800-KERR-123

e-mail address of person responsible for this SDS : edwin.varela@kavokerrgroup.com

Emergency telephone number (with hours of operation) : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887

### Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
 SKIN SENSITIZATION - Category 1  
 ASPIRATION HAZARD - Category 1

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : Flammable liquid and vapor.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 May be fatal if swallowed and enters airways.

**Precautionary statements**

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.



## Section 2. Hazards identification

- Response** : IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. 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 attention.
- Storage** : Store locked up. Store in a well-ventilated place. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Avoid contact with skin and clothing. Wash thoroughly after handling.
- Hazards not otherwise classified** : Defatting to the skin. Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

### CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : Not available.

Ingredient name	Other names	%	CAS number
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	Not available.	60-100%	-
geraniol	geraniol	1-5%	106-24-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Large scale processes: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 7. Handling and storage

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 18 to 24°C (64.4 to 75.2°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.  
Recommended: Nitrile gloves.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Recommended: Lab coat.

## Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Colorless.
- Odor** : Mild. Mineral oil.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 155 to 175°C (311 to 347°F)
- Flash point** : Closed cup: 43°C (109.4°F) [ASTM D-93]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Lower: <1%  
Upper: 6.5 to 7%
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Insoluble in the following materials: cold water.  
Soluble in the following materials: organic solvents.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- SADT** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): 0.009 cm<sup>2</sup>/s (0.9 cSt)
- Density** : 0.75 g/cm<sup>3</sup> [15°C]

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.  
Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Incompatible materials** :

## Section 10. Stability and reactivity

Reactive or incompatible with the following materials:  
oxidizing materials

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	LD50 Dermal	Rabbit	>5000 mg/kg	-
geraniol	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
SOLITINE	LD50 Oral	Rat	2.1 g/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
geraniol	Skin - Mild irritant	Guinea pig	-	30 Percent	-
	Skin - Severe irritant	Guinea pig	-	24 hours 100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	4 hours 0.5 Milliliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
geraniol	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Name	Result
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	ASPIRATION HAZARD - Category 1

## Section 11. Toxicological information

Information on the likely routes of exposure : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.  
**Ingestion** : May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
 dryness  
 cracking  
**Ingestion** : Adverse symptoms may include the following:  
 nausea or vomiting

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

**General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics  geraniol SOLITINE	Acute EC50 >1000 mg/l [E <sub>B</sub> L50]	Algae - Pseudokirchnerella subcapitata	72 hours
	Acute EC50 >1000 mg/l [E <sub>L</sub> L50]	Daphnia - Daphnia magna	48 hours
	Acute LC50 >1000 mg/l [L <sub>L</sub> L50]	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 2.6 mg/l Fresh water	Fish - Salmo trutta	96 hours
	Acute LC50 >100 mg/l	Fish	96 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics  geraniol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	31 % - 28 days	-	-
	301D Ready Biodegradability - Closed Bottle Test	73 % - 14 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	-	-	Inherent
geraniol	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
geraniol	2.6	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.




## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. 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.

## Section 14. Transport information



## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3295	UN3295	UN3295
UN proper shipping name	Hydrocarbons, liquid, n.o.s.	HYDROCARBONS, LIQUID, N. O.S.	Hydrocarbons, liquid, n.o.s.
Transport hazard class(es)	3 	3 	3 
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Additional information	<p>This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.</p> <p><b>Limited quantity</b> Yes.</p> <p><b>Packaging instruction</b> <b>Passenger aircraft</b> Quantity limitation: 60 L</p> <p><b>Cargo aircraft</b> Quantity limitation: 220 L</p> <p><b>Special provisions</b> 144, B1, IB3, T4, TP1, TP29</p>	<p><b>Emergency schedules (EmS)</b> F-E, S-D</p> <p><b>Special provisions</b> 223</p>	<p><b>Passenger and Cargo Aircraft</b> Quantity limitation: 60 L Packaging instructions: 355</p> <p><b>Cargo Aircraft Only</b>Quantity limitation: 220 L Packaging instructions: 366</p> <p><b>Limited Quantities - Passenger Aircraft</b>Quantity limitation: 10 L Packaging instructions: Y344</p> <p><b>Special provisions</b> A3, A224</p>

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

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## Section 15. Regulatory information

DEA List I Chemicals : Not listed  
(Precursor Chemicals)

DEA List II Chemicals : Not listed  
(Essential Chemicals)

### SARA 302/304

#### Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

### SARA 311/312

Classification : Fire hazard  
Immediate (acute) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	98.423	Yes.	No.	No.	No.	No.
geraniol	1.028	No.	No.	No.	Yes.	No.

### SARA 313

Not applicable.

### State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

### California Prop. 65

None of the components are listed.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	2
Flammability	2
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



## Section 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

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Prepared by : IHS

Key to abbreviations : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

References : HCS (U.S.A.)- Hazard Communication Standard  
 International transport regulations

Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.