

Material Safety Data Sheet
Citrus Cleaning Solvent

Section 1 - Chemical Product and Company Identification

MSDS Name:

Citrus Cleaning Solvent

Catalog Numbers:

8301

Synonyms:

Orange terpenes.

Company Identification:

Richard Allan Scientific
4481 Campus Drive
Kalamazoo, MI 49008

Company Phone Number:

800-522-7270

Emergency Phone Number:

800-424-9300

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS
68647-72-3	d-Limonene	100	Not available

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless clear liquid

Warning! Flammable liquid and vapor. May cause allergic skin reaction. Causes eye and skin irritation. May cause respiratory tract irritation. Marine pollutant. Flash Point: 44.4°C.

Target Organs: Skin

Potential Health Effects

Eye:

Causes eye irritation.

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Skin:

Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.

Ingestion:

May cause irritation of the digestive tract. May cause digestive tract disturbances.

Inhalation:

May cause respiratory tract irritation. May be harmful if inhaled.

Chronic:

No information found.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Skin:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Do not induce vomiting. Get medical aid immediately.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Flammable liquid and vapor. This liquid floats on water and may travel to a source of ignition and spread fire.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: 0.7% Upper: 6.1%

Flash Point:

44.4°C (111.92°F)

NFPA Rating:

(estimated) Health: 2; Flammability: 2; Instability: 0

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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Forms smooth, slippery surfaces on floors, posing an accident risk. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling:

Use with adequate ventilation. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from sources of ignition. Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
d-Limonene	None listed	None listed	None listed

OSHA Vacated PELs

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

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Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: Colorless
Odor: Citrus-like odor
pH: No information found
Vapor Pressure: < 3 mm Hg @ 14.4°C
Vapor Density: 4.7
Evaporation Rate: No information found
Viscosity: No information found
Boiling Point: 176°C
Freezing/Melting Point: No information found
Decomposition Temperature: No information found
Solubility in water: Insoluble.
Specific Gravity/Density: No information found
Molecular Formula: Not applicable.
Molecular Weight: No information found

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, ignition sources, excess heat

Incompatibilities with Other Materials

Strong oxidizing agents

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 68647-72-3 unlisted

LD50/LC50:

CAS# 68647-72-3:
No information found

Carcinogenicity:

CAS# 68647-72-3: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information found

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Teratogenicity:

No information found

Reproductive:

See actual entry in RTECS for complete information.

Mutagenicity:

See actual entry in RTECS for complete information.

Neurotoxicity:

No information found

Other:

The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity:

No information found

Environmental:

May bioconcentrate in aquatic organisms and fish. Has low mobility in soil and may rapidly volatilize in the atmosphere. Limonene can be readily degraded in soil.

Physical:

No information found

Other:

Dipentene, which is optically inactive limonene, is a marine pollutant.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

Section 14 - Transport Information

US DOT

Canadian TDG

Proper Shipping Name: TERPENE HYDROCARBONS, N.O.S.
Hazard Class: 3
UN Number: UN2319
Packing Group: III

TERPENE HYDROCARBON S, N.O.S.
3
UN2319
III

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Section 15 - Regulatory Information

US Federal

TSCA

CAS# 68647-72-3 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

None of the components are on this list.

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

Not available

SARA Section 313

None of the components are on this list.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depleters

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depleters

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State

State Right to Know

No information found

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California Prop 65

None of the components are on this list.

California No Significant Risk Level

None of the components are on this list.

European/International Regulations

European Labelling in Accordance with EC Directives:

Hazard Symbols: XI N

Risk Phrases: R 10 Flammable.

R 38 Irritating to skin.

R 43 May cause sensitization by skin contact.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S 24 Avoid contact with skin.

S 37 Wear suitable gloves.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 68647-72-3 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of B3, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

No information found

Section 16 - Other Information

No information found

MSDS Creation Date: April 11, 2008

Revision Date: April 11, 2008

Revisions were made in Sections:

14

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.