



SAFETY DATA SHEET

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Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name ORANGE SOLV

Other means of identification

Product Code(s) 159570

Synonyms N/A

Recommended use of the chemical and restrictions on use

Recommended Use Degreaser

Uses advised against No Information Available

Supplier's details

Supplier Address

Birsch Industries
476 Viking Drive
Virginia Beach, VA. 23452
TEL: 757-622-0355

Emergency telephone number

Emergency Telephone Number CHEM-TEL, INC.
24 Hour Emergency Contact 1-800-255-3924

2. HAZARDS IDENTIFICATION

Classification

FLAMABLE LIQUIDS – Category 3
SKIN CORROSION/IRRITATION – Category 2
SENSITIZATION – SKIN – Category 1
ASPIRATION HAZARD – Category 1
HAZARDOUS TO THE AQUATIC ENVIRONMENT – ACUTE – Category 1
HAZARDOUS TO THE AQUATIC ENVIRONMENT – CHRONIC – Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word**DANGER****Hazard Statements**

- Flammable liquid and vapor
- May be fatal if swallowed and enters airways
- Causes skin irritation
- May cause an allergic skin reaction
- Very toxic to aquatic life with long lasting effects

Appearance Clear**Physical State** Liquid**Odor** Orange Scent**Symbol:****Precautionary Statements****Prevention**

Keep away from heat/sparks/open flames/hot materials. – No smoking.
 Keep container tightly closed.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Wear protective gloves/eye protection/face protection.
 Wash thoroughly after handling.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Contaminated work clothing should not be allowed out of the workplace.
 Avoid release into the environment.

Response

IF ON SKIN (or hair): Wash skin with plenty of soap and water.
 If skin irritation or rash occurs: Get medical advice/attention.
 Take off contaminated clothing and wash before reuse.
 In case of fire: Use Carbon dioxide, foam or dry chemical for extinction.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 Do NOT induce vomiting.
 Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.
 Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Chemical Name	CAS-No	Weight %	Notes
d-Limonene	94266-47-4	90 – 95	*
Cocamide DEA	68603-42-9	2 – 5	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

General Information	As with any chemical, employees should thoroughly wash hands with soap and water after handling this material.
Eye Contact	Remove any contact lenses at once. Flush eyes 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.
Ingestion	Seek medical attention immediately. Do NOT induce vomiting. Rinse mouth with water. Do NOT offer water or anything to drink that might cause vomiting. Do NOT administer anything by mouth to an unconscious person. Do NOT leave victim unattended.

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.

Protective Equipment and Precautions for Firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

Environmental Precautions Prevent further leakage or spillage. Keep away from drains, surface and ground water and soil.

Methods and materials for containment and cleaning up

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

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Keep away from heat, sparks and flame. Open container slowly to release pressure caused by temperature variations. Do not allow this material to come in contact with eyes. Avoid prolonged contact with skin. Use in well-ventilated areas. Do not breathe vapors. Drum lining may occasionally chip and fall to the bottom of container; product should be filtered or strained before blending or repackaging. As with any chemical, employees should thoroughly wash hands with soap and water after handling this material.

Conditions for safe storage, including any incompatibilities

Storage Product may be packaged in phenolic-lined steel containers or fluorinated plastic containers. Store in a well ventilated area with proper sprinkler/fire deterrent system. Storage temperature should not exceed the flash point got extended periods of time. Keep container closed when not in use. Air should be excluded from partially filled containers by displacing with nitrogen or carbon dioxide. Do not cut, drill, grind or weld on or near this container; residual vapors may ignite.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Components with limit values that require monitoring at the workplace:

	94266-47-4 d-Limonene
AIHA Standard	8h TWA = 30 ppm

Appropriate engineering controls

Normal room ventilation is usually adequate. Provide exhaust ventilation or other engineering controls to keep the airborne concentration below any regulated limits. Keep away from sparks and flames.

Individual protection measures, such as personal protective equipment

Eye & Face Protection Wear safety glasses or goggles.

Hand & Skin Protection Nitrile gloves are recommended. Boots, apron or bodysuit should be worn as necessary.

Respiratory Protection Not normally required. If adequate ventilation is unavailable, use NIOSH approved air-purifying respirator with organic vapor cartridge or canister.

Hygiene Measures Wash hands thoroughly after handling. Have eyewash and emergency shower facilities immediately available. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Clear
Odor	Orange Scent	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>
pH	6.0 – 6.5
Melting Point/Range	No data available
Boiling Point/Boiling Range	310°F (154.4°C)
Flash Point	> 115°F (46.1°C)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammability Limits in Air	
upper flammability limit	No data available
lower flammability limit	No data available
Vapor Pressure	< 10mmHg @ 20°C (68°F)
Vapor Density	No data available
Relative Density	No data available
Specific Gravity	0.87 @ 25°C (77°F)

Water Solubility	Emulsifies
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Flammable Properties	No data available
Explosive Properties	No data available
Oxidizing Properties	No data available

10. STABILITY AND REACTIVITY

Stability

The product is stable

Possibility of hazardous reactions

BHT, an antioxidant, can be added to prevent oxidation. Avoid long-term exposure to air. If storing partially filled containers, fill headspace with an inert gas such as nitrogen or carbon dioxide.

Conditions to avoid

Keep away from heat, sparks and flames.

Incompatible materials

Strong oxidizing agents and strong acids, including acidic clays, peroxides, halogens, vinyl chloride and iodine pentafluoride.

Hazardous decomposition products

Oxides of d-Limonene, which can result from improper storage and handling, are known to cause skin sensitization. No decomposition if stored properly.

11. TOXICOLOGICAL INFORMATION

Acute Effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation RD50
d-Limonene 94266-47-4	> 5 g/kg (Rabbit)	> 5 g/kg (Rabbit)	> 1 g/kg (Mice)

Route of Exposure

Skin contact, Eye contact, Inhalation, Ingestion

Symptoms

Eye Contact	Possible eye irritant
Skin Contact	Possible skin irritant
Inhalation	May cause irritation of the nose, throat and respiratory tract.

Chronic Toxicity

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.

12. ECOLOGICAL INFORMATION

Toxicity

This product may be very toxic to aquatic life. However due to the physical properties of the product (density and volatility) it will not remain in the environment for an extended period of time.

Persistence/Degradability

Product is readily biodegradable.

Bioaccumulation/Accumulation

The octanol-water partition coefficient (Kow) for d-Limonene is 4.23. The potential for bioaccumulation in the environment is possible. However, the metabolism of citrus extractives into non-accumulating metabolites greatly reduces the risk of bioaccumulation.

Mobility in Environment

Citrus extractives volatilize rapidly. Citrus extractives are expected to volatilize from soil or water to the air and oxidize to carbon dioxide in the presence of sunlight.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Incinerate or dispose of in accordance with local regulations. Oil soaked rags or contaminated packaging should be disposed of properly to prevent spontaneous combustion.

14. TRANSPORT INFORMATION

DOT/IMDG/IATA

Not Regulated

15. REGULATORY INFORMATION

International Inventories

TSCA

Complies

DSL

Complies

U.S. Federal Regulations

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

SARA Hazard Categories

This substance contains no materials subject to the reporting requirements of SARA Title III (Section 313).

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.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

US State Right-To-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

16. OTHER INFORMATION

NFPA

Health 1

Flammability 2

Instability 0

HMIS

Health 1

Flammability 2

Physical Hazards 0

Prepared By	Birsch Industries 476 Viking Drive Virginia Beach, VA. 23452 TEL: 757-622-0355
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General 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