

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Orange Solv

Other means of identification

Product Code 1175

Details of the supplier of the safety data sheet

Company Name Blue Cardinal Chemical, LLC
3670 Scarlet Oak Blvd.
St. Louis, MO 63122
800-325-3312

Emergency telephone number

Emergency Telephone CHEMTEL 1-800-255-3924

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 5
Acute toxicity - Dermal	Category 5
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1

Label elements

Emergency Overview

WARNING

Hazard statements

May be harmful if swallowed
May be harmful in contact with skin
Causes skin irritation
May cause an allergic skin reaction



Appearance: Clear

Physical state: Liquid

Odor: Citrus



Precautionary Statements - Prevention

Wash face, hands, and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Skin Contact: Wash off immediately with plenty of water. Wash off immediately with plenty of water for at least 15 minutes. Wash off immediately with soap and plenty of water. If skin irritation persists, see a physician. Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Inhalation: Remove to fresh air. Ingestion Clean mouth with water and drink afterwards plenty of water. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink plenty of water. Immediately call a POISON CENTER or doctor/physician.

Precautionary Statements - Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)**Other Information**

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

Unknown Acute Toxicity

20.18 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NO.	WEIGHT - %	TRADE SECRET
D-Limonene	5989-27-5	15-40	*
2-butoxyethanol	111-76-2	5-10	*

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

4. FIRST AID MEASURES

First aid measures**General Advice****Skin Contact**

Wash off immediately with plenty of water. Wash off immediately with plenty of water for at least 15 minutes. Wash off immediately with soap and plenty of water. If skin irritation persists, see a physician.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Inhalation

Remove to fresh air.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effect, both acute and delayed**Symptoms**

Any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No Information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions Do not allow into any storm sewer drains, lakes, streams, ponds, estuaries, oceans or other surface water bodies. Should not be released into the environment. Dispose of according to all local city, state and federal rules and regulations.

Methods and material for containment and cleaning up

Methods for containment & cleaning up Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

CHEMICAL NAME	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m3 (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m3 (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m3

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	No Information available. Avoid contact with eyes.
Skin and body protection	Wear protective gloves and protective clothing. Prolonged or repeated contact may be drying to skin.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear
Color	Orange
Odor	Citrus
Odor Threshold	No Information available

Property**Values**

pH	Not an Aqueous Solution
Specific Gravity	.75
Viscosity	No Information available
Melting point/freezing point	No Information available
Flash point	No Information available
Boiling point / boiling range	No Information available
Evaporation rate	No Information available
Flammability (solid, gas)	No Information available
Flammability Limits in Air	
Upper flammability limit	No Information available
Lower flammability limit	No Information available
Vapor pressure	No Information available
Vapor density	No Information available
Water solubility	Complete
Partition coefficient	No Information available
Autoignition temperature	No Information available
Decomposition temperature	No Information available

Other Information

Density Lbs/Gal	6.5
Voc Content (%)	47

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended storage conditions.

Possibility Of Hazardous Reactions

None under normal processing.

Conditions To Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Skin Contact	May be harmful in contact with skin.
Eye Contact	No data available. Avoid contact with eyes.
Inhalation	No data available. Avoid breathing vapors or mists.
Ingestion	May be harmful if swallowed.

CHEMICAL NAME	ORAL LD50	DERMAL LD50	INHALATION LC50
D-Limonene 5989-27-5	= 5200 mg/kg (Rat) = 4400 mg/kg (Rat) = 5300 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
2-butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 435 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h

Information on toxicological effects

Symptoms No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No Information available.

Germ Cell Mutagenicity No Information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

CHEMICAL NAME	ACGIH	IARC	NTP	OSHA
D-Limonene 5989-27-5	-	Group 3	-	X
2-butoxyethanol 111-76-2	A3	Group 3	-	-

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not classifiable as a human carcinogen

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity	No Information available.
STOT - Single Exposure	No Information available.
STOT - Repeated Exposure	No Information available.
Chronic Toxicity	May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects	Blood, Central nervous system, EYES, hematopoietic system, Kidney, Liver, Respiratory system, Skin.
Aspiration Hazard	No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 20.18 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	3,585 mg/kg
ATEmix (dermal)	2,698 mg/kg
ATEmix (inhalation-dust/mist)	13 mg/l
ATEmix (inhalation-vapor)	3,772 mg/l

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT.

Ecotoxicity

1.74% of the mixture consists of component(s) of unknown hazards to the aquatic environment

CHEMICAL NAME	ALGAE/AQUATIC PLANTS	FISH	CRUSTACEA
D-Limonene 5989-27-5	-	0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50	-
2-butoxyethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
Decanal 112-31-2	-	1.45: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	-

Persistence and Degradability

No Information available.

Bioaccumulation

No Information available.

CHEMICAL NAME	PARTITION COEFFICIENT
2-butoxyethanol 111-76-2	0.81

Other Adverse Effects

No Information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

CHEMICAL NAME	CALIFORNIA HAZARDOUS WASTE STATUS
D-Limonene 5989-27-5	Toxic

14. TRANSPORT INFORMATION

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

DOT Not regulated.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CHEMICAL NAME	SARA 313-THRESHOLD VALUES %
2-butoxyethanol - 111-76-2	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release Of Pressure Hazard	No
Reactive Hazard	No

CWA (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.

US State Regulations**California Proposition 65**

This product has been evaluated and does not require warning labeling under California Proposition 65.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
D-Limonene 5989-27-5	X	-	-
2-butoxyethanol 111-76-2	X	X	X
Ethyl Butyrate 105-54-4	X	X	X
Water 7732-18-5	-	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	Health hazards	2	Flammability	0	Reactivity	0	Other	-
HMIS	Health hazards	2	Flammability	0	Reactivity	0	Personal protection	X

Issue Date 08/14/2022

Revision Date

Revision Note

N/A = Not Applicable; N/D = Not Determined

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet