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SAFETY DATA SHEET

Issue Date: 6 October 2015

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Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: **ORANGE SOLV**

Product Description: **CITRUS BASED DRAIN MAINTAINER**

Other Means of Identification

Product # 175, 176
Synonyms None

Details of the Supplier of the Safety Data Sheet

Company Name CHEMCO INDUSTRIES, INC.
5731 Manchester Avenue
St. Louis, MO 63110
www.chemcoindustries.com
314-647-1888
1-800-854-4236 (to Reorder)

Emergency Telephone Number

Emergency Telephone INFOTRAC 1-800-535-5053

2. HAZARDS IDENTIFICATION

Classification (GHS-US)

Flam. Liq. 3 H226
Skin Irrit. 2 H315
Skin Sens. 1 H317
Asp. Tox. 1 H304

*Full text of H-phrases: see section 16

GHS-US Labeling

Hazard pictograms (GHS-US):



Signal Word (GHS-US): **Danger**

Hazard Statements (GHS-US):

- Keep away from heat, hot surfaces, open flames, sparks. - No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof ventilating, lighting, electrical equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Avoid breathing gas, mist, spray, vapors
- Wash thoroughly after handling
- Contaminated work clothing must not be allowed out of the workplace
- Wear protective gloves, protective clothing, eye protection, face protection
- If swallowed: immediately call a POISON CENTER, a doctor
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- Do Not induce vomiting
- If skin irritation or rash occurs: Get medical advice/attention
- Take off contaminated clothing and wash it before reuse

In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder, foam to extinguish

Store in a well-ventilated place. Keep cool

Store locked up

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and /or international regulation

Other hazards: No additional information available

Unknown acute toxicity (GHS-US): Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance: Not applicable

Mixture:

Name	Product identifier	%	Classification (GHS-US)
(+)-limonene	(CAS No) 5989-27-5	60 - 100	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
UNDECETH-5	(CAS No) 34398-01-1	7.0 - 13.0	Acute tox. 4 (Oral), H318 Eye Dam. 1, H318

4. FIRST AID MEASURES

Description of first aid measures:

First-aid measures general:

If you feel unwell, seek medical advice (show the label where possible)

First-aid measures after inhalation:

If breathing is difficult, 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.

First-aid measures after skin contact:

Take off immediately all contaminated clothing and wash it before reuse. Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion:

Do NOT induce vomiting. Immediately call a poison center or doctor/physician. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed:

Symptoms/injuries:

If you feel unwell, seek medical advice.

Symptoms/injuries after inhalation:

Irritation of the respiratory tract. Headache.

Symptoms/injuries after skin contact:

Causes skin irritation. May cause and allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/injuries after eye contact:

Causes serious eye damage.

Symptoms/injuries after ingestion:

May be harmful if swallowed and enters airways. Nausea. Cramps/uncontrolled muscular contractions. Diarrhea. Risk of aspiration pneumonia.

Chronic symptoms:

Cracking of the skin. Dry skin.

Indication of any immediate medical attention and special treatment needed:

No additional information available.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media:

Foam. Carbon dioxide. Dry chemical powder.

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 be ignited by sparks. May form flammable/explosive vapor-air mixture.

Reactivity:

Reacts with (strong) oxidizers. Reacts with (some) acids. Reacts with (some) halogens compounds.

Upon combustion:

CO and CO₂ are formed.

Advice for firefighters:**Firefighting instructions:**

Exercise caution when fighting any chemical fire. In case of fire: evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.

Protection during firefighting:

Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:**General measures:**

No flames. No sparks. Eliminate all sources of ignition.

For non-emergency personnel:

No additional information available.

For emergency responders:

No additional information available.

Environmental precautions:

No additional information available.

Methods and material for containment and clean up:

No additional information available.

Reference to other sections:

No additional information available.

7. HANDLING AND STORAGE

Precautions for safe handling:**Additional hazards when processed:**

Handle empty containers with care because residual vapors are flammable. In use, may form vapor-air mixture. Keep away from open flame, sparks, excessive heat. - No smoking.

Precautions for safe handling:

Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Handle and open the container with care. Keep away from sources of ignition - No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Hygiene measures:

Wash thoroughly after handling. 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:**

Comply with applicable regulations. 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: sparks, open flames, excessive heat. Keep container tightly closed.

Incompatible products:

Oxidizing agent. Strong acids.

Incompatible materials:

Sources of ignition.

Heat-ignition:

KEEP SUBSTANCE AWAY FROM: heat sources, ignition sources

Prohibitions on mixed storage:

KEEP SUBSTANCE AWAY FROM: oxidizing agents, (strong) acids, halogens

Storage area:

Store away from heat. Store in a cool area. Store in a well-ventilated place.

Special rules on packaging:

Keep only in original container. Meet the legal requirements.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls:**Personal protective equipment:**

Use appropriate personal protective equipment when risk assessment indicates this is necessary. Glove. Safety glasses. Protective goggles. Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state	Liquid
Appearance	Clear, colorless liquid
Odor	Citrus scent
Odor threshold	No data available
pH	No data available

Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	124 F closed cup
Relative evaporation rate (butyl acetate=1)	No data available
Flammability (solid, gas)	No data available
Explosion limits	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Vapor pressure	No data available
Relative density	No data available
Relative vapor density at 20 C	No data available
Specific gravity/density	0.85 g/ml
Solubility	Emulsifies in water
Log Pow	No data available
Log Kow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	< 20 cSt
Viscosity, dynamic	No data available
VOC content	> 90%

10. STABILITY AND REACTIVITY

Reactivity:

Reacts with (strong) oxidizers. Reacts with (some) acids. Reacts with (some) halogens compounds. Upon combustion: CO and CO₂ are formed.

Chemical stability:

No additional information available.

Possibility of hazardous reactions:

No additional information available.

Conditions to avoid:

No additional information available.

Incompatible materials:

No additional information available.

Hazardous decomposition products:

No additional information available.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity: Not classified

(+)-limonene (5989-27-5)	
LD50 oral rat	440 mg/kg body weight (Rat; OECD 423: Acute Oral Toxicity - Acute Toxic Class Method; Literature study; > 2000 mg/kg body weight; Rat; Read-across)
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Weight of evidence; Equivalent or similar to OECD 402)
ATE CLP (oral)	4400.000 mg/kg body weight
UNDECETH-5 (34398-01-1)	
LD50 oral rat	> 1400 mg/kg

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

(+)-limonene (5989-27-5)	
IARC group	3 - Not Classifiable

Reproductive toxicity:	Not classified
Specific target organ toxicity (single exposure):	Not classified
Specific target organ toxicity (repeated exposure):	Not classified
Aspiration hazard:	May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation:	Irritation of the respiratory tract. Headache.
Symptoms/injuries after skin contact:	Causes skin irritation. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact:	Causes serious eye damage.
Symptoms/injuries after ingestion:	May be harmful if swallowed and enters airways. Nausea. Cramps/uncontrolled muscular contractions. Diarrhea. Risk of aspiration pneumonia.
Chronic symptoms:	Cracking of the skin. Dry skin.

12. ECOLOGICAL INFORMATION

Toxicity:

(+)-limonene (5989-27-5)	
LC50 fish 1	720 ug/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	0.36 ng/l (48 h; Daphnia magna; GLP)
LC50 fish 2	702 ug/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)
UNDECETH-5	
LC50 fish 1	< 10 mg/l
EC50 Daphnia 1	< 10 mg/l
ErC50 (algae)	< 10 mg/l

Persistence and degradability:

(+)-limonene (5989-27-5)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Absorbs into the soil
ThOD	3.29 g O/g substance

Bioaccumulative potential:

(+)-limonene (5989-27-5)	
BCG 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)

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Waste disposal recommendations:

Additional information:

Dispose in a safe manner in accordance with local/national regulations.
Clean up even minor leaks or spills if possible without unnecessary risk. Handle empty containers with care because residual vapors are flammable.

14. TRANSPORT INFORMATION

Department of Transportation (DOT)

In accordance with DOT :

UN-No.(DOT):

Proper Shipping Name (DOT):

Transport hazard class(es) (DOT):

Hazard labels (DOT):

Packing group (DOT):

DOT Packaging Non Bulk (49 CFR 173.xxx): 203

DOT Packaging Bulk (49 CFR 173.xxx): 242

DOT Special Provisions (49 CFR 172.102): B1, IB3, T4, TP1, TP29

DOT Packaging Exceptions (49 CFR 173.xxx): 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 175.27): 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 220 L

DOT Vessel Stowage Location: A

Additional information:

Other information:

When transported by ground in non-bulk containers, this product utilizes the exception found under 49 CFR 173.150.

ADR:

No additional information available.

Transport by sea:

No additional information available.

Air Transport:

No additional information available.

15. REGULATORY INFORMATION

Not listed on the United States TSCA (Toxic Substances Control Act) inventory.

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR 372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

(+)-limonene (5989-27-5)	
UNDECETH-5	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

California Proposition 65 - This product does not contain substances know to the State of California to cause cancer and /or reproductive toxicity.

16. OTHER INFORMATION

Training advice: Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage

NFPA health hazard: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

Disclaimer

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendee or users assume all risks associated with the use of this material.