

CUSTOMER: 275804

BATCH #: 121370055

ZONE #:204

BARCODE #:9611019095150216479638

PRODUCT NAME: CITRI-SHIELD, 12X24 OZ

ORDER #: 746800

STICKER #: 121370356

Supersedes Date 04/24/2009

Material Safety Data Sheet: CITRI-SHIELD, 12X24 OZ

Issuing Date 05/27/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CITRI-SHIELD, 12X24 OZ

Recommended use Cleaning agent

Information on Manufacturer

CHEMSEARCH DIV. OF NCH CORP.

BOX 152170

IRVING, TX 75015

Product Code 5602

Chemical nature Solvent mixture

Emergency Telephone Number

CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER

Combustible liquid and vapor

Causes skin irritation

Severe eye irritation

May be harmful if inhaled

May cause allergic skin reaction

May cause allergic respiratory reaction

Harmful or fatal if swallowed

Color yellow-orange

Potential Health Effects

Principle Route of Exposure

Primary Routes of Entry

Acute Effects

Eyes

Skin

Inhalation

Ingestion

Chronic Toxicity

Target Organ Effects

Aggravated Medical Conditions

Potential Environmental Effects

Physical State Liquid

Odor orange

Inhalation, Skin contact, Eye contact.

Inhalation, Skin Absorption.

Severe irritation.

Causes skin irritation. May cause allergic skin reaction.

May cause irritation of respiratory tract. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. May cause allergic respiratory reaction.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

May cause sensitization by skin contact. May cause sensitization by inhalation. Prolonged skin contact may defat the skin and produce dermatitis. Liver and kidney injuries may occur.

Central nervous system, Lungs, Bone Marrow, Kidney, Liver, Bladder.

Respiratory disorders, Skin disorders, Kidney disorders, Liver disorders.

See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
1-Tetradecene	1120-36-1
D-Limonene	5989-27-5
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	60828-78-6
1-Hexadecene	629-73-2
2-Butyl-1-decene	51655-65-3
2-Ethyl-1-dodecene	19780-34-8

4. FIRST AID MEASURES

General Advice

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

Inhalation

Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.

Ingestion

Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to physician

Aspiration hazard if swallowed - can enter lungs and cause damage.

5. FIRE-FIGHTING MEASURES

Flash Point 150 °F / 66 °C

Method

Seta closed cup

Autoignition Temperature No information available.

Flammability Limits in Air % Mixture.

Upper 6.1

Lower 0.7

Suitable Extinguishing Media

Foam. Dry chemical. Water spray. Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Material can create slippery conditions.

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.

NFPA

Health 2

Flammability 2

Instability 0

HMIS

Health 2

Flammability 2

Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

Environmental Precautions

Methods for Containment

Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Methods for Cleaning Up

Neutralizing Agent

Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers. Not applicable.

7. HANDLING AND STORAGE

Handling

Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

Storage

Keep away from heat and sources of ignition. Store in original container. Keep containers tightly closed in a cool, well-ventilated place.

Storage Temperature

Storage Conditions

Minimum 35 °F / 2 °C
Indoor X Outdoor
Maximum Heated 120 °F / 49 °C
Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
1-Tetradecene	No data available	No data available	No data available
D-Limonene	No data available	No data available	No data available
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	No data available	No data available	No data available
1-Hexadecene	No data available	No data available	No data available
2-Butyl-1-decene	No data available	No data available	No data available
2-Ethyl-1-dodecene	No data available	No data available	No data available

Engineering Measures

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection

Tightly fitting safety goggles.

Skin Protection

Wear suitable protective clothing, impervious gloves.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations

Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Non viscous
Color	yellow-orange	Odor	orange
Appearance	Transparent - Slightly hazy	pH	Not applicable
Specific Gravity	0.801	Evaporation Rate	0.08 (Butyl acetate=1)
Percent Volatile (Volume)	96	VOC Content (%)	94.9
VOC Content (g/L)	760	Vapor Pressure	2.2 mmHg @ 70°F
Vapor Density	2.8 (Air = 1.0)	Solubility	Negligible
Boiling Point/Range	348 °F / 176 °C		

10. STABILITY AND REACTIVITY

Chemical Stability

Stable. Hazardous polymerization does not occur.

Conditions to Avoid

Keep away from open flames, hot surfaces, and sources of ignition

Incompatible Products

Strong oxidizing agents, Acids, Acid chlorides, Highly halogenated compounds.

Hazardous Decomposition Products

Carbon oxides, Smoke.

Possibility of Hazardous Reactions

None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
1-Tetradecene	> 10000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	no data available	no data available	no data available
D-Limonene	4400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	no data available	no data available	no data available
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	7480 µL/kg (Rat)	8480 µL/kg (Rabbit)	no data available	no data available	no data available
1-Hexadecene	> 10000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	no data available	no data available	no data available
2-Butyl-1-decene	no data available	no data available	no data available	no data available	no data available
2-Ethyl-1-dodecene	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
1-Tetradecene	no data available	no data available	no data available	no data available	no data available
D-Limonene	no data available	Skin sensitization, Respiratory sensitization	no data available	no data available	CNS, bone marrow, lungs, liver, kidneys
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	no data available	no data available	no data available	no data available	Bladder, Liver, Kidneys
1-Hexadecene	no data available	no data available	no data available	no data available	no data available
2-Butyl-1-decene	no data available	no data available	no data available	no data available	no data available
2-Ethyl-1-dodecene	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
1-Tetradecene	not applicable	not applicable	not applicable	not applicable	not applicable
D-Limonene	not applicable	not applicable	not applicable	not applicable	not applicable
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	not applicable	not applicable	not applicable	not applicable	not applicable
1-Hexadecene	not applicable	not applicable	not applicable	not applicable	not applicable
2-Butyl-1-decene	not applicable	not applicable	not applicable	not applicable	not applicable
2-Ethyl-1-dodecene	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION**Product Information**

No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
1-Tetradecene	no data available	no data available	EC50 > 10000 mg/L 6 h	no data available	N/A
D-Limonene	no data available	LC50 0.619-0.796 mg/L Pimephales promelas 96 h LC50 35 mg/L Oncorhynchus mykiss 96 h	no data available	no data available	N/A
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	no data available	no data available	no data available	no data available	N/A
1-Hexadecene	no data available	no data available	no data available	no data available	N/A
2-Butyl-1-decene	no data available	no data available	no data available	no data available	N/A
2-Ethyl-1-dodecene	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

13. DISPOSAL CONSIDERATIONS**Product Disposal**

Dispose of in accordance with local regulations.

Container Disposal

Empty containers should be taken for local recycling, recovery, or waste disposal

14. TRANSPORT INFORMATION**DOT**

Proper Shipping Name <119 gallons Not Regulated >119 Gals = Terpene Hydrocarbons, N.O.S.
Hazard Class 3
UN-No UN2319
Packing Group III
Description UN2319, Terpene Hydrocarbons, N.O.S., 3, PG III (Exceptions may exist under DOT CFR49 173.150)

TDG

Proper shipping name <119 Gals = Not Regulated >119 Gals = Terpene Hydrocarbons, N.O.S.
Hazard Class 3
UN-No UN2319
Packing Group III
Description UN2319, Terpene Hydrocarbons, N.O.S., 3, PG III (Exceptions may exist under TDG)

ICAO

Not regulated

IATA

Not regulated

IMDG/IMO

Not regulated

15. REGULATORY INFORMATION**Inventories****TSCA**

Complies

DSL

Complies

U.S. Federal Regulations**SARA 313**

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

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
1-Tetradecene	Not applicable	Not applicable
D-Limonene	Not applicable	Not applicable
2,6,8-Trimethyl-4-nonyloxy polyethylene oxyethanol	Not applicable	Not applicable
1-Hexadecene	Not applicable	Not applicable
2-Butyl-1-decene	Not applicable	Not applicable
2-Ethyl-1-dodecene	Not applicable	Not applicable

Canada

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

WHMIS Hazard Class

B3 Combustible liquid, D2A Very toxic materials, D2B Toxic materials.

**16. OTHER INFORMATION**

Prepared By	Rachael Mohochi
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Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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