SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier
Product Name CITRIKLEEN DEA

Recommended use of the chemical and restrictions on use
Recommended use Degreaser
Restrictions on use For industrial use only

Supplier details

West Penetone Inc.
11411-160 Street
Edmonton, AB,
T5M3T7
Tel: 780-454-3919

Emergency Telephone Number
Canutec (613)-996-6666

2. HAZARDS IDENTIFICATION

Classification

Flammable liquids	Category 3

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1
Specific target organ toxicity – single exposure	Category 3
Aspiration hazard	Category 1

Hazardous to the aquatic environment, acute hazard	Category 2

Label Elements

DANGER

Hazard Statements
Flammable liquid and vapor
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause respiratory irritation
May be fatal if swallowed and enters airways
Toxic to aquatic life

Precautionary Statements - Prevention
Keep away from open flame.
Keep container tightly closed.
Do not breathe mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. If skin irritation occurs: get medical advice/attention. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. .

Precautionary Statements - Storage
Store locked up. Store in a well ventilated place. Keep container tightly closed. Keep cool.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
dipentene	68956-56-9	10-30
ethanolammonium dodecylbenzenesulfonate	26836-07-7	5-10
d-limonene	5989-27-5	3-7
alcohols, C9-C11, ethoxylated	68439-46-3	1-5
diethylene glycol monobutyl ether	112-34-5	1-5
2-aminoethanol	141-43-5	1-5
tetrasodium ethylenediaminetetraacetate	64-02-8	1-5

4. FIRST AID MEASURES

Eye contact — Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician

Skin contact — Wash with plenty of water. If skin irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash it before re-use.

Inhalation — If difficulties occur after mist/vapors/spray has been inhaled, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion — Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

Contact with eyes may cause serious damage leading to irritation, discomfort or pain, excess blinking and tear production with marked excess redness and swelling of the conjunctiva, blurred vision, and possible corneal injury. Contact with skin may cause irritation with local redness and aggravate previous medical skin conditions. Contact may also cause an allergic skin reaction with prolonged or repeated exposure. Inhalation of mist/vapors/spray may cause respiratory tract irritation leading to a temporary burning sensation of the nose and throat, coughing, and difficulty breathing. High concentrations may cause central nervous system depression leading to headaches, dizziness, and nausea. Ingestion may cause irritation or a burning sensation of the mouth and throat and abdominal pain. Ingestion may cause pneumonitis if aspirated into lungs.

Indication of any immediate medical attention and special treatment needed

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
None.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed including oxides of carbon, nitrogen, and sulfur and other irritating gases.

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
Ensure adequate ventilation. Remove all sources of ignition. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental Precautions
Avoid discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
Contain and solidify with inert absorbent material. Keep in suitable, closed containers for disposal. Following product recovery, flush area with water. For large spills, stop flow of material, dike, and pump off product where this is without risk and possible. Proceed as above.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Avoid contact and inhalation of mist/vapors/spray. Avoid contact with skin, eyes and clothing. Ensure thorough ventilation of work areas.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed away from direct sunlight in a dry, cool and well-ventilated place, away from incompatible materials.

Incompatible Materials Acids, strong oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
d-limonene 5989-27-5	TWA: 30 ppm/165.5 mg/m^3 (AIHA)	Not available	Not available
diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm	Not available	Not available
2-aminoethanol 141-43-5	TWA : 3 ppm/7.5 mg/m^3 STEL : 6 ppm/15 mg/m^3	3 ppm/6 mg/m^3	Not listed

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be made available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face Protection Safety glasses with side shields or goggles.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory Protection Wear respiratory protection if ventilation is inadequate. Respiratory protection in case of vapor/aerosol release.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :
Clear, yellow liquid
ODOR
Citrus/pine
ODOR THRESHOLD :
Not applicable
pH :
10.3-10.7
MELTING POINT / FREEZING POINT :
$\leq$ -10^{o}C
BOILING POINT/BOILING RANGE :
Approx. 100^{o}C
FLASH POINT :
52^{o}C (TCC), 74^{o}C (COC)
EVAPORATION RATE, water = 1 :
1
FLAMMABILITY (SOLID, GAS):
Not applicable

VAPOR PRESSURE, mm Hg AT 20ºC :
Equal to water
VAPOR DENSITY (Air = 1) :
Not available
RELATIVE DENSITY AT 20ºC:
0.985-0.995
SOLUBILITY IN WATER :
Forms stable emulsion
PARTITION COEFFICIENT, N-OCTANOL/WATER :
Not available
AUTO-IGNITION TEMPERATURE :
225^{o}C
DECOMPOSITION TEMPERATURE:
Not available
VISCOSITY:
< 10 cps
FLAMMABLE LIMITS :
UPPER: Not available **LOWER :** Not available

10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid
Avoid all sources of ignition: open flame. Store away from incompatible materials.

Incompatible Materials
Strong oxidizing materials, acids, amphoteric or light metals.

Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition can lead to release of irritating gases and vapors such as oxides of carbon, nitrogen, and sulfur as well as other low molecular weight hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
dipentene 68956-56-9	>2000 mg/kg (rat)	Not listed	Not listed
ethanolammonium dodecylbenzenesulfonate 26836-07-7	Not listed	Not listed	Not listed
d-limonene 5989-27-5	4400 mg/kg (rat)	>5000 mg/kg (rabbit)	Not listed
alcohols, C9-C11, ethoxylated 68439-46-3	>2000 mg/kg (rat)	>2000 mg/kg (rabbit)	Not listed
diethylene glycol monobutyl ether 112-34-5	3384 mg/kg (rat)	2700 mg/kg (rabbit)	Not listed
2-aminoethanol 141-43-5	1720 mg/kg (rat)	1000 mg/kg (rabbit)	Not listed
tetrasodium ethylenediaminetetraacetate 64-02-8	>1780-<2000 mg/kg (rat)	Not listed	>1 mg/L (aerosol) (rat) – 6 h

Information on likely sources of exposure

Inhalation May cause respiratory irritation and possible damage.
Serious eye damage/irritation Causes serious eye damage.
Skin corrosion/irritation Causes skin irritation and possible sensitization.
Ingestion May be fatal if swallowed and enters airways.

Delayed and immediate effects and also chronic effects from short and long-term exposure

Respiratory or skin sensitization	d-limonene (CAS 5989-27-5)	1 May cause an allergic skin reaction
	dipentene (CAS 68956-56-9)	1 May cause an allergic skin reaction
Germ cell mutagenicity	No information available.	
Carcinogenicity	No information available	
Reproductive toxicity	No information available	
STOT - single exposure	d-limonene (CAS 5989-27-5)	3 May cause respiratory irritation
	dipentene (CAS 68956-56-9)	3 May cause respiratory irritation
STOT - repeated exposure	No information available	
Aspiration Hazard	d-limonene (CAS 5989-27-5)	1 May be fatal if swallowed and enters airways
	dipentene (CAS 68956-56-9)	1 May be fatal if swallowed and enters airways

Symptoms related to the physical, chemical and toxicological characteristics
See Section 2 & 4.

12. ECOLOGICAL INFORMATION

Ecotoxicity
If available, ecotoxicity values of individual components are shown below.

Chemical Name	Fish	Waterflea	Algae
d-limonene 5989-27-5	0.702 mg/L: 96 h fathead minnow LC50	69.6 mg/L: 48 h daphnia pulex EC50	Not available
alcohols, C9-C11, ethoxylated 68439-46-3	5-10 mg/L: 96 h LC50	5-10 mg/L: 48 h EC50	10-100 mg/L: 72 h EC50
diethylene glycol monobutyl ether 112-34-5	1300 mg/L: 96 h lepomis macrochirus LC50	Not available	>100 mg/L: 96 h desmodesmus subspicatus EC50
2-aminoethanol 141-43-5	150 mg/L: 96 h rainbow trout LC50	Not available	Not available
tetrasodium ethylenediaminetetraacetate 64-02-8	>100 mg/L: 96 h lepomis macrochirus LC50	>100 mg/L: 48 h daphnia magna	>100 mg/L: 72 h green alage EC50

Persistence and degradability
Expected to be potentially biodegradable.

Bioaccumulative potential
Accumulation in organisms is not to be expected.

Mobility in soil
No information available

Other adverse effects
Do not release untreated into natural waters. No other adverse environmental effects are expected.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations.

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

14. TRANSPORT INFORMATION

TDG classification

UN 2924, Flammable Liquid, Corrosive, N.O.S. (terpenes, ethanolamine solution), Class 3 (8), PG III

15. REGULATORY INFORMATION

All ingredients are listed on the DSL

16. OTHER INFORMATION

Preparation Date	5 April, 2016
Revision Date	not applicable
Revision Note	not applicable

Disclaimer
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End of SDS