



Safety Data Sheet

Citrus-Sol

1. IDENTIFICATION

Product Identifier: Citrus-Sol
Canadian TDG: Non Regulated
Synonyms: None
Chemical Family: Non known
Recommended Use: Cleaner, degreaser
Restrictions on Use: None

Manufacturer / Supplier:

Genesis Chemicals
1451 Highway Ave SE
Redcliff, AB
T0J 2P0

Prepared by: The Environmental, Health and Safety Department of Genesis Chemicals Ltd

Preparation Date of SDS: January 27, 2017

Telephone number of preparer: 403-528-4220

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation – Category 2; Eye irritation – Category 2A; Skin sensitisation – Category 1



Signal Word: Warning

Hazard Statement(s):

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction

Precautionary Statement(s):

General:
Keep out of reach of children.
Read label before use.

Prevention:

Wear protective gloves, protective clothing, eye protection and face protection.

Wash face, hands and any exposed skin thoroughly after handling.
Avoid breathing dust, fumes, gas, mist, vapours or spray.
Contaminated work clothing should not be allowed out of the workplace.

Response:

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

IF IN EYES: 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.

Take off contaminated clothing and wash before reuse.

Storage:

No specific measures identified.

Disposal:

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

Other Hazards:

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Name	CAS No.	Concentration %
2-Butoxyethanol	111-76-2	<20
Citrus, ext.	94266-47-4	<20
Synthetic Hydrocarbons, Non-Distillate	68608-80-0	<20
Poly(oxy-1,2-ethanediyl),alpha-(4-nonylphenyl)-omega-hydroxy-,branched	127087-87-0	<20
Amines, C12-18-alkyldimethyl	68391-04-8	<5

Notes

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First-aid Measures

General

Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice/attention.

Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion

Immediately call a Poison Centre or doctor. Do not induce vomiting.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: at high concentrations symptoms may include headache, nausea, dizziness, drowsiness and confusion.

If on skin: may cause an allergic skin reaction in some people. Symptoms include redness, rash, itching and swelling.

If in eyes: symptoms include sore, red eyes, and tearing.

If swallowed: may be drawn into the lungs if swallowed or vomited, causing severe lung damage. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Immediate Medical Attention and Special Treatment

Special Instructions

Not applicable.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate or water spray.

Unsuitable Extinguishing Media

High volume water jet.

Specific Hazards Arising from the Chemical

Do not allow run-off from fire fighting to enter drains or water courses.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Approach fire from upwind to avoid hazardous vapours or gases.

Stop leak before attempting to put out the fire. Product could form an explosive mixture and reignite. Keep containers cool to avoid bursting.

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours, flammable or explosive atmosphere.

Dike and recover contaminated water for appropriate disposal.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. If there is potential for skin contact with concentrated cleaner: chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Concentrated product: evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Distant ignition and flashback are possible.

Increase ventilation to area or move leaking container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Before entry, especially into confined areas, check atmosphere with an appropriate monitor. Monitor area for flammable or explosive atmosphere.

Product (diluted as directed): use the personal protective equipment recommended in Section 8 of this safety data sheet. No other special precautions are necessary.

Environmental Precautions

Concentrated product: do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Concentrated product: small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal.

Concentrated product: large spills or leaks: cover the spill surface with the appropriate type of foam to reduce the

release of vapour. Dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Dike and recover contaminated water for appropriate disposal. Store recovered product in suitable containers that are: tightly-covered.

Product (diluted as directed): no special clean-up methods are necessary.

Other Information

Report spills to local health, safety and environmental authorities, as required.

7. HANDLING AND STORAGE

Precautions for Safe Handling

When handling diluted product: no special handling precautions are necessary.

When handling concentrated product: only use where there is adequate ventilation. Avoid generating vapours or mists. Keep containers tightly closed when not in use or empty. Wear personal protective equipment to avoid direct contact with this chemical.

Do NOT smoke in work areas. Wash hands thoroughly after handling this material. Immediately remove contaminated clothing using the method that minimizes exposure. Keep contaminated clothing under water, in closed containers. Launder clothes before rewearing. Inform laundry personnel of product hazard(s). Do not take contaminated clothing home.

Conditions for Safe Storage

Concentrated product: store in an area that is: temperature-controlled, well-ventilated, out of direct sunlight and separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a closed container. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Keep amount in storage to a minimum. Comply with all applicable health and safety regulations, fire and building codes.

Materials to Avoid

Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ingredients	ACGIH® TLV®	OSHA PEL	IDLH
2-Butoxyethanol	20 ppm (98 mg/m ³) TLV-TWA	50 ppm (240 mg/m ³) PEL-TWA	700 ppm
Citrus, ext.	Not available	Not available	Not available
Synthetic Hydrocarbons, Non-Distillate	Not available	Not available	Not available
Poly(oxy-1,2-ethanediyl),alpha-(4-nonylphenyl)-omega-hydroxy-,branched	Not available	Not available	Not available
Amines, C12-18-alkyldimethyl	Not available	Not available	Not available

Consult local authorities for provincial or state exposure limits.

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

When handling large quantities of concentrated product: use a local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

Individual Protection Measures

Eye/Face Protection

Do not get in eyes. Wear chemical safety goggles.

Skin Protection

Prevent all skin contact. Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: Barrier® (PE/PA/PE), Silver Shield/4H® (PE/EVAL/PE), Tychem® Responder, Tychem® TK.
The following materials should NOT be used: neoprene rubber, nitrile rubber, polyvinyl alcohol.

Respiratory Protection

Not normally required if product is used as directed.

Concentrated product: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour Cartridge, or, wear a NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

9. CHEMICAL AND PHYSICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Green liquid.
Odour	Citrus
Odour Threshold	Not available
pH	9.8-10.5
Melting Point/Freezing Point	Not available
Initial Boiling Point/Range	Not available
Flash Point	>100°C / >212°F
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	<1 mm Hg at 20°C
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	0.85-1.00 at 20°C
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Other Information	
Physical State:	Liquid

10. STABILITY AND REACTIVITY

Reactivity

Not reactive. Not sensitive to mechanical impact.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Oxidizing agents (e.g. peroxides).

Hazardous Decomposition Products

During a fire, irritating/toxic gases, such as carbon monoxide, carbon dioxide may be formed depending on fire conditions.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure Inhalation; skin contact; eye contact; ingestion.

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
2-Butoxyethanol	Inhalation LC50 (Rat) 450 ppm/4H Inhalation LC50 (Mouse) 700 ppm/7H Inhalation LC50 (Mouse) 3380 mg/m ³ /7H Inhalation LC50 (Rat) 2900 mg/m ³ /7H	Oral LD50 (Mouse) 1167 mg/kg Oral LD50 (Mouse) 1230 mg/kg Oral LD50 (Rat) 400 mg/kg Oral LD50 (Rat) 470 mg/kg Oral LD50 (Rat) 530 mg/kg Oral LD50 (Rat) 917 mg/kg Oral LD50 (Rabbit) 320 mg/kg Oral LD50 (Guinea Pig) 1200 mg/kg	Dermal LD50 (Rabbit) 220 mg/kg Dermal LD50 (Rabbit) 99 m
Citrus, ext.	Not available	Not available	Not available
Synthetic Hydrocarbons, Non-Distillate	Not available	Oral LD50 (Rat) = 530 mg/kg	Dermal LD50 (Rat) 530 mg/kg
Poly(oxy-1,2-ethanediyl),alpha-(4-nonylphenyl)-omega-hydroxy-,branched	Not available	Oral LD50 (Rat) 2590 mg/kg	Dermal LD50 (Rabbit) 2830 mg/kg
Amines, C12-18-alkyldimethyl	Not available	Not available	Not available

Skin Corrosion/Irritation

May cause mild irritation based on information for closely related chemicals.

Serious Eye Damage/Irritation

May irritate the eyes. May cause irreversible eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No data available.

Aspiration Hazard

No data available.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No data available.

Respiratory and/or Skin Sensitization

No data available.

Carcinogenicity

Chemical Name	IARC	ACGIH
2-Butoxyethanol	Group 3	Listed
Citrus, ext.	Group 3	Not listed
Synthetic Hydrocarbons, Non-Distillate	Not available	Not available
Poly(oxy-1,2-ethanediyl),alpha-(4-nonylphenyl)-omega-hydroxy-,branched	Not available	Not available
Amines, C12-18-alkyldimethyl	Not available	Not available

**Reproductive Toxicity
Development of Offspring**

No data available.

Sexual Function and Fertility

No data available.

Germ Cell Mutagenicity

Not mutagenic.

Interactive Effects

No information was located.

Additional Information: Excessive exposure to 2-butoxyethanol may cause hemolysis, thereby impairing the blood's ability to transport oxygen. Prolonged and repeated contact with the skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Repeated inhalation or ingestion may cause central nervous system and gastrointestinal disturbances.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
2-Butoxyethanol	LC50 (Lepomis macrochirus) 1490 mg/L	Not Available	Not Available
Citrus, ext.	LC50 (Pimephales promelas) 702 mg/L	Not Available	Not Available
Synthetic Hydrocarbons, Non-Distillate	Not Available	Not Available	Not Available
Poly(oxy-1,2-ethanediyl),alpha-(4-nonylphenyl)-omega-hydroxy-,branched	Not Available	Not Available	Not Available
Amines, C12-18-alkyldimethyl	Not Available	Not Available	Not Available

Other Information:

Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. Spill areas must be cleaned and restored to original condition or to the satisfaction of authorities. May be harmful to aquatic life. Biodegrades (slow). Rapid volatilization. Not expected to bioconcentrate.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Recommended disposal methods are for the product, as sold. (Used material may contain other hazardous contaminants). The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.

Burn in an approved incinerator according to federal, provincial/state, and local regulations. Empty containers retain product residue. Follow label warnings even if container appears to be empty. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: Not Regulated.
DOT Hazardous Class Not Applicable.
DOT UN Number: Not Applicable.
DOT Packing Group: Not Applicable.
DOT Reportable Quantity (lbs): Not Available.
Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: Not Regulated.
Hazard Class: Not Applicable.
UN Number: Not Applicable.
Packing Group: Not Applicable.
Marine Pollutant: No.

Special Precautions for User

Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

Canada

WHMIS Classification

D2B - Toxic materials

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

CEPA - National Pollutant Release Inventory (NPRI)

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

16. OTHER INFORMATION

Additional Information: This product has been classified in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and the SDS contains all the information required by the Hazardous Products Regulations (HPR).

Prepared by: The Environmental, Health and Safety Department of Genesis Chemicals Ltd

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Key to Abbreviations:

IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A4 = Not classifiable as a human carcinogen. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration. ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. A4 = Not classifiable as a human carcinogen. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. IDLH = Immediately Dangerous to Life and Health.

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*****END OF SDS*****