Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 04.16.2023

Revision date: 06.03.2024

Chem-Genie® 100

SECTION 1: Identification

Product Identifier

Product Name: Chem-Genie® 100

Product code: CG-100

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Acidic Commercial Car Wash Detergent

Uses Advised Against: Not determined or not applicable.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

Quest Car Care Products
3333 Production Ct.
Zeeland, Michigan 49464
616-772-5100
www.questcarcare.com

Emergency Telephone Number:

United States

CHEMTREC
1-800-424-9300 (24 hrs)
1-800-262-8200 (24 hrs)
1-703-527-3887 (24 hrs (international))

SECTION 2: Hazard(s) Identification

GHS Classification:

Flammable liquids, category 4
Acute toxicity (oral), category 4
Skin irritation, category 2
Serious eye damage, category 1

Label elements

Hazard Pictograms:

Signal Word: Danger

Hazard statements:

H227 Combustible liquid
H318 Causes serious eye damage
H302 Harmful if swallowed

H315 Causes skin irritation

Precautionary Statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection
P264 Wash hands/skin thoroughly after contact with or handling.
P270 Do not eat, drink or smoke when using this product
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 Immediately call a POISON CENTER/911/PHYSICIAN IF: swallowed, eye contact, skin burns/rash or breathing difficulties.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 Rinse mouth
P370+P378 In case of fire: Use water spray or foam to extinguish [water jet not recommended].
P302+P352 IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.
P321 Specific treatment (see first aid procedures on the product label in section 4 of this SDS)
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash it before reuse
P403+P235 Store in a well-ventilated place. Keep cool
P501 Dispose of contents/container in accordance with local, state and federal regulations.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 7732-18-5	Water	20-40
CAS Number: 68081-81-2	Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	10-20
CAS Number: 77-92-9	Citric acid	10-20
CAS Number: Proprietary	Surfactants	5-10
CAS Number: Proprietary	Alcohols, ethoxylated	5-10
CAS Number: 111-76-2	Ethylene Glycol Monobutyl Ether	5-10
CAS Number: 64-17-5	Ethanol	1-5

Additional Information:

Ingredients not listed above are being withheld as trade secret.

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance.

After Inhalation:

If inhaled and you feel unwell or nauseas, discontinue use and get to fresh air and remain calm. If you still feel unwell or breathing is difficult get medical attention immediately and take their advice.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses, if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

Not determined or not applicable.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Eye contact may result in irritation, redness, pain, inflammation, itching, burning, tearing, corneal damage and loss of vision.

Delayed Symptoms and Effects:

Effects are dependent on exposure (dose, concentration, contact time).

Immediate Medical Attention and Special Treatment

Specific Treatment:

For persisting eye irritation contact a physician.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Thermal decomposition may produce irritating/toxic fumes/gases.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Harmful if swallowed. Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Avoid breathing dust, mist, fumes, vapors or spray. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
OSHA	Ethylene Glycol Monobutyl Ether	111-76-2	8-Hour TWA-PEL: 240 mg/m³ (50 ppm)
	Ethanol	64-17-5	8-Hour TWA-PEL: 1900 mg/m³ ([1000 ppm])
NIOSH	Ethylene Glycol Monobutyl Ether	111-76-2	IDLH: 700 ppm
	Ethylene Glycol Monobutyl Ether	111-76-2	REL-TWA: 24 mg/m³ (5 ppm [up to 10 hr])
	Ethanol	64-17-5	REL-TWA: 1900 mg/m³ (1000 ppm [up to 10 hr.])
	Ethanol	64-17-5	IDLH: 3300 ppm
ACGIH	Ethylene Glycol Monobutyl Ether	111-76-2	8-Hour TWA: 20 ppm
	Ethanol	64-17-5	15-Minute STEL: 1000 ppm
United States(California)	Ethylene Glycol Monobutyl Ether	111-76-2	8-Hour TWA-PEL: 97 mg/m³ (20 ppm)
	Ethanol	64-17-5	8-Hour TWA-PEL: 1900 mg/m³ ([1000 ppm])

Biological Limit Values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	Ethylene Glycol Monobutyl Ether	111-76-2	Butoxyacetic acid (with hydrolysis)	Creatinine in Urine	End of shift	200 mg/g

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Viscous, Strawlike
Odor	Ether-like, Acrid
Odor threshold	Not determined or not available.
pH	1.0-2.0
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	75-80 c
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.

Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	1.04-1.07
Solubilities	Water
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:
Not reactive under recommended handling and storage conditions.

Chemical Stability:
Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:
Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:
Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:
None known.

Hazardous Decomposition Products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment:
Harmful if swallowed.

Product Data: No data available.

Substance Data:

Name	Route	Result
Ethylene Glycol Monobutyl Ether	Dermal ATE	LD50 Rabbit: 1100 mg/kg
	Oral ATE	LD50 Rat: 1200 mg/kg (Annex VI to the CLP)
	Inhalation ATE	LC50 Rat: 3 mg/L (4 hr [Vapor] Annex VI to the CLP)
Ethanol	oral	LD50 Rat: 10,470 mg/kg
	inhalation	LC50 Rat: 116.9 mg/L (4 hr [vapor])
	dermal	LD50 Rabbit: 17,100 mg/kg
Citric acid	oral	LD50 Mouse: 5400 mg/kg
	dermal	LD50 Rat: > 2000 mg/kg

Name	Route	Result
Alcohols, ethoxylated	oral	LD50 Rat: 1400 mg/kg
	dermal	LD50 Rabbit: > 2000 mg/kg
	inhalation	LC50 Rat: >1.6 mg/m³ (4 hr [aerosol])
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Oral ATE	LD50 Rat: 500 mg/kg

Skin Corrosion/Irritation

Assessment:

Causes skin irritation.

Product Data:

No data available.

Substance Data:

Name	Result
Ethylene Glycol Monobutyl Ether	Causes skin irritation.
Surfactants	Causes skin irritation.
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye damage.

Product Data:

No data available.

Substance Data:

Name	Result
Ethylene Glycol Monobutyl Ether	Causes serious eye irritation.
Ethanol	Causes serious eye irritation.
Surfactants	Causes serious eye damage.
Citric acid	Causes serious eye irritation.
Alcohols, ethoxylated	Causes serious eye damage.
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Causes serious eye damage.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
Water	Not Applicable
Ethanol	Not Applicable
Surfactants	Not Applicable
Ethylene Glycol Monobutyl Ether	Group 3
Alcohols, ethoxylated	Not Applicable
Citric acid	Not Applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Water	Not Applicable
Ethanol	Not Applicable
Surfactants	Not Applicable
Ethylene Glycol Monobutyl Ether	Not Applicable
Alcohols, ethoxylated	Not Applicable
Citric acid	Not Applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Not Applicable

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Citric acid	May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:
No data available.

Substance Data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:
No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:
No data available.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:
No data available.

Other Information:
No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Ethylene Glycol Monobutyl Ether	Aquatic Invertebrates EC50 Daphnia magna: 1550 mg/L (48 hr [mobility])
	Fish LC50 Oncorhynchus mykiss: 1474 mg/L (96 hr)
	Aquatic Plants EC50 Raphidocelis subcapitata: 1840 mg/L (72 hr [Growth rate])
Ethanol	Fish LC50 Pimephales promelas: 15,300 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: >10,000 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Chlorella vulgaris: 275 mg/L (72 hr [growth rate])
	Bacteria LC50 Paramaecium caudatum: 5,800 mg/L (4 hr)
Citric acid	Fish LC50 Pimephales promelas: >100 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: > 50 mg/L (48 hr [substrate reattachment abilities])
Alcohols, ethoxylated	Fish LC50 Oncorhynchus mykiss: 5 - 7 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 2.5 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Raphidocelis subcapitata: 1.4 mg/L (96 hr [cell number])

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Ethylene Glycol Monobutyl Ether	Fish NOEC Danio rerio: > 100 mg/L (21 d [markers for endocrine disruptive effects])
	Aquatic Invertebrates NOEC Daphnia magna: 100 mg/L (21 d [reproduction])

Name	Result
Ethanol	Aquatic Invertebrates NOEC Daphnia Magna: 9.6 mg/L (10 d [reproduction])
	Fish NOEC Danio rerio: 250 mg/L (5 d)
Alcohols, ethoxylated	Fish NOEC Pimephales promelas: 0.28 mg/L (30 d [mortality, Read-across substance data])
	Aquatic Invertebrates NOEC Daphnia magna: 0.77 mg/L (21 d [reproduction, Read-across substance data])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Alcohols, ethoxylated	The substance is readily biodegradable. 72% degradation in water, measured by inorganic C analysis, after 28 days (Read-across substance data)..
Ethylene Glycol Monobutyl Ether	The substance is readily biodegradable. 90.4% degradation, measured by CO2 evolution, after 28 days.
Ethanol	The substance is readily biodegradable. 84% degradation in water, measured by O2 consumption, after 20 days.
Citric acid	The substance is readily biodegradable. 97% degradation in water, measured by CO2 evolution, after 28 days.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
Ethylene Glycol Monobutyl Ether	The substance is not expected to bioaccumulate (log Kow = 0.83).
Ethanol	The substance is not expected to bioaccumulate in organisms (estimated BCF: 3).
Alcohols, ethoxylated	The substance has the potential to bioaccumulate (log Pow=3.3 - 3.73 & BCF= 237 L/kg, Read-across substance data).
Citric acid	The substance is not expected to bioaccumulate (log Pow= -1.55 and BCF= 3.2 L/kg- calculated value).

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Ethanol	The substance is highly mobile; therefore, adsorption to soil is not expected (log Koc: 0.2).
Alcohols, ethoxylated	The substance is moderately mobile, therefore, moderate adsorption to soil is expected (log Koc=2.7 - 3.5 at 25 °C, QSAR substance data).
Citric acid	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (Koc: 10).

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

Ethylene Glycol Monobutyl Ether	The substance is not PBT.
Ethanol	The substance is not PBT.
Citric acid	The substance is not PBT.
Alcohols, ethoxylated	The substance is not PBT.

vPvB assessment:

Ethylene Glycol Monobutyl Ether	The substance is not vPvB.
Ethanol	The substance is not vPvB.
Citric acid	The substance is not vPvB.
Alcohols, ethoxylated	The substance is not vPvB.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

Dispose of in accordance with state and federal regulations. Small amounts of neat solution can be flushed with copious amounts of water to a sanitary sewer system.

Contaminated packages:

Contact the manufacturer for advice. Wear appropriate personal protective equipment before attempting to handle.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Maritime Dangerous Goods (IMDG)

UN Number	3265 (vessel only)
UN Proper Shipping Name	Corrosive, Liquid, Acidic, Organic, N.O.S. (Citric acid)
UN Transport Hazard Class(es)	8 
Packing Group	III
Environmental Hazards	None
Special Precautions for User	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	3265

UN Proper Shipping Name	Corrosive, Liquid, Acidic, Organic, N.O.S. (Citric acid)
UN Transport Hazard Class(es)	8 
Packing Group	III
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals:

111-76-2	Ethylene Glycol Monobutyl Ether	Listed

CERCLA:

111-76-2	Ethylene Glycol Monobutyl Ether	Listed	N/A
64-17-5	Ethanol	Listed	100 lb

RCRA:

64-17-5	Ethanol	Listed	D001

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

64-17-5	Ethanol	Listed
111-76-2	Ethylene Glycol Monobutyl Ether	Listed

New Jersey Right to Know:

64-17-5	Ethanol	Listed
111-76-2	Ethylene Glycol Monobutyl Ether	Listed

New York Right to Know:

64-17-5	Ethanol	Listed
111-76-2	Ethylene Glycol Monobutyl Ether	Listed

Pennsylvania Right to Know:

64-17-5	Ethanol	Listed
111-76-2	Ethylene Glycol Monobutyl Ether	Listed

California Proposition 65: None of the ingredients are listed.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0
Initial Preparation Date: 04.16.2023
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End of Safety Data Sheet