

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Chem-Genie® 600

SECTION 1: Identification

Product Identifier

Product Name: Chem-Genie® 600

Product code: CG-600

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Commercial Cleaning 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:

Acute toxicity (oral), category 4 Skin irritation, category 2 Eye irritation, category 2A

Label elements

Hazard Pictograms:



Signal Word: Warning

Hazard statements:

H315 Causes skin irritation

H319 Causes serious eye irritation

H302 Harmful if swallowed

Precautionary Statements:

P264 Wash hands/skin thoroughly after contact with or handling.

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P280 Wear protective gloves/protective clothing/eye protection/face protection

P270 Do not eat, drink or smoke when using this product

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337+P313 If eye irritation persists: Get medical advice/attention

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 Rinse mouth

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	40-60
CAS Number: Proprietary	Alkylbenzene sulfonates	10-20
CAS Number: Proprietary	Surfactant	5-10
CAS Number: 68585-34-2	Alcohols, C10-16, ethoxylated, sulfates, sodium salts	5-10
CAS Number: 112-34-5	2-(2-butoxyethoxy)ethanol	5-10
CAS Number: 64-17-5	Ethanol	1-5
CAS Number: 111-42-2	2,2'-iminodiethanol	0.5-1

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.

Show this Safety Data Sheet to the doctor in attendance. Take precautions to ensure your own safety before attempting rescue. Wear appropriate safety eyewear, gloves, protective clothing and respiratory protection to prevent exposure. See Section 8 of this SDS for personal protective equipment recommendations. Do not use the mouth to mouth method if victim has ingested or inhaled the product. Give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper device.

After Inhalation:

Not a likely hazard, but if purposely inhaled and you feel unwell, discontinue use and get to fresh air. Get

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medical advice if respiratory discomfort continues.

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 gently flowing lukewarm water for 15 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:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Skin contact may result in redness, pain, burning and inflammation.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Acute oral exposure may lead to dizziness, drowsiness, headache, breathing difficulties, nausea, vomiting, abdominal pain, and lowering of consciousness. Adverse effects are dependent on exposure (dose, concentration, contact time).

Delayed Symptoms and Effects:

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

Symptoms of exposure may be delayed.

Immediate Medical Attention and Special Treatment

Specific Treatment:

Not determined or not applicable.

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

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

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:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. 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). 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

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
NIOSH	2,2'-iminodiethanol	111-42-2	REL-TWA: 15 mg/m³ (3 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	2,2'-iminodiethanol	111-42-2	8-Hour TWA: 1 mg/m³ (inhalable fraction and vapor)
	Ethanol	64-17-5	15-Minute STEL: 1000 ppm
	2-(2-butoxyethoxy)ethanol	112-34-5	8-Hour TWA: 10 ppm

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States(California)	2,2'-iminodiethanol	l .	8-Hour TWA-PEL: 2 mg/m ³ ([0.46 ppm])
	Ethanol	l .	8-Hour TWA-PEL: 1900 mg/m ³ ([1000 ppm])
OSHA	Ethanol		8-Hour TWA-PEL: 1900 mg/m ³ ([1000 ppm])

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

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	Violet Liquid
Odor	Near odorless, slight alcohol
Odor threshold	Not determined or not available.
рН	7.0-9.0
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	>93 c

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Not determined or not available.
Not determined or not available.
1.03-1.08
Water
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
2,2'-iminodiethanol	oral	LD50 Rat: 710 mg/kg
	dermal	LD50 Rabbit: 12,971 mg/kg
Alkylbenzene sulfonates	Oral ATE	LD50 Rat: 500 mg/kg
Surfactant	Oral ATE	LD50 Rat: 500 mg/kg (Conversion point corresponding to Hazard Classification)

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Name	Route	Result
Ethanol	oral	LD50 Rat: 10,470 mg/kg
	inhalation	LC50 Rat: 116.9 mg/L (4 hr [vapor])
2-(2-butoxyethoxy)ethanol	dermal	LD50 Rabbit: 2764 mg/kg
	oral	LD50 Mouse: 2410 mg/kg

Skin Corrosion/Irritation

Assessment:

Causes skin irritation.

Product Data:No data available.

Substance Data:

Name	Result
2,2'-iminodiethanol	Causes skin irritation.
Alkylbenzene sulfonates	Causes skin irritation.
Surfactant	Causes skin irritation.
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye irritation.

Product Data:

No data available.

Substance Data:

Name	Result
2,2'-iminodiethanol	Causes serious eye damage.
Alkylbenzene sulfonates	Causes serious eye irritation.
Surfactant	Causes serious eye damage.
Ethanol	Causes serious eye irritation.
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	Causes serious eye irritation.
2-(2-butoxyethoxy)ethanol	Causes serious eye irritation.

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:

Name	Species	Result
2,2'-iminodiethanol		There is inadequate evidence in humans for the carcinogenicity of diethanolamine. Cancer in experimental animals: There is sufficient evidence in experimental animals for the carcinogenicity of diethanolamine.

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International Agency for Research on Cancer (IARC):

Name	Classification
Water	Not Applicable
Alkylbenzene sulfonates	Not Applicable
Surfactant	Not Applicable
2,2'-iminodiethanol	Group 2B
Ethanol	Not Applicable
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	Not Applicable
2-(2-butoxyethoxy)ethanol	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Water	Not Applicable
Alkylbenzene sulfonates	Not Applicable
Surfactant	Not Applicable
2,2'-iminodiethanol	Not Applicable
Ethanol	Not Applicable
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	Not Applicable
2-(2-butoxyethoxy)ethanol	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: No data available.

Specific Target Organ Toxicity (Repeated Exposure)

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

Product Data:No data available. **Substance Data:**

Name	Result
2,2'-iminodiethanol	May cause damage to liver, blood and kidney through prolonged or
	repeated oral exposure.

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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
2,2'-iminodiethanol	Fish LC50 Oncorhynchus mykiss: 460 mg/L (96 hr)
	Aquatic Invertebrates EC50 Ceriodaphnia dubia: 30.1 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: 9.5 mg/L (72 h)
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)
2-(2-butoxyethoxy)ethanol	Fish LC50 Leopomis macrochirus: 1300 mg/L (96 h [mortality])
	Aquatic Plants EC50 Desmodesmus subspicatus: >100 mg/L (96 h [growth rate and biomass])
	Aquatic Invertebrates EC50 Daphnia magna: >100 mg/L (48 h [mobility])

Chronic (Long-Term) Toxicity

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

Product Data: No data available.

Substance Data:

,	
Name	Result
2,2'-iminodiethanol	Aquatic Invertebrates NOEC Daphnia magna: 0.78 mg/L (21 d)
Ethanol Aquatic Invertebrates NOEC Daphnia Magna: 9.6 mg/L (10 d [reproduction])	
	Fish NOEC Danio rerio: 250 mg/L (5 d)

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
2,2'-iminodiethanol	The substance is readily biodegradable. 93% degradation, measured by
	O2 consumption, after 28 days.

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Name	Result
	The substance is readily biodegradable. 84% degradation measured by O2 consumption, after 20 days.
	The substance is readily biodegradable (85% degradation in water, measured by O2 consumption, after 28 days).

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
2,2'-iminodiethanol	The substance is not expected to bioaccumulate (Log kow: -2.46; calculated BCF: 9.16 L/kg).
Ethanol	The substance is not expected to bioaccumulate in organisms (estimated BCF: 3).
2-(2-butoxyethoxy)ethanol	The substance has a low potential for bioaccumulation based on log Kow <=3.

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
	Substance is expected to be highly mobile (calculated log Koc: 0.99); therefore, adsorption to soil is not expected.
1	The substance is highly mobile; therefore, adsorption to soil is not expected (log Koc: 0.2).

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:

2,2'-iminodiethanol	This substance is not PBT.
Ethanol	The substance is not PBT.
2-(2-butoxyethoxy)ethanol	The substance is not PBT.

vPvB assessment:

2,2'-iminodiethanol	This substance is not vPvB.	
Ethanol	The substance is not vPvB.	
2-(2-butoxyethoxy)ethanol	The substance is not vPvB.	

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

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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	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 Air Transport Association Dangerous Goods Regulations (IATA-DGR)

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

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:

111-42-2	2,2'-iminodiethanol	Listed
112-34-5	2-(2-butoxyethoxy)ethanol	Listed

CERCLA:

Proprietary	Alkylbenzene sulfonates		1000 Lbs.
111-42-2	2,2'-iminodiethanol	Listed	100 lbs
64-17-5	Ethanol	Listed	100 lb
112-34-5	2-(2-butoxyethoxy)ethanol	Listed	N/A

RCRA:

64-17-5 Ethanoi Listed D001	107 I/ J	Ethanol	Listed	D001
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Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

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Proprietary	Alkylbenzene sulfonates	Listed
111-42-2	2,2'-iminodiethanol	Listed
64-17-5	Ethanol	Listed

New Jersey Right to Know:

Proprietary	Alkylbenzene sulfonates	Listed
111-42-2	2,2'-iminodiethanol	Listed
64-17-5	Ethanol	Listed
112-34-5	2-(2-butoxyethoxy)ethanol	Listed

New York Right to Know:

Proprietary	Alkylbenzene sulfonates	Listed
111-42-2	2,2'-iminodiethanol	Listed
64-17-5	Ethanol	Listed
112-34-5	2-(2-butoxyethoxy)ethanol	Listed

Pennsylvania Right to Know:

Proprietary	Alkylbenzene sulfonates	Listed
111-42-2	2,2'-iminodiethanol	Listed
64-17-5	Ethanol	Listed
112-34-5	2-(2-butoxyethoxy)ethanol	Listed

California Proposition 65:

△WARNING: This product can expose you to Diethanolamine; which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

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 **HMIS:** 1-0-0-B

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End of Safety Data Sheet