

SAFETY DATA SHEET

1. Identification

Product number CS229
Product identifier Pro Series Rug & Upholstery Cleaner
Company information
CSI Inc.
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone
Emergency telephone US 800-252-4731
Emergency telephone outside US 1-952-852-4646
Version # 01
Recommended use Not available.
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
OSHA defined hazards Not classified.

Label elements



Signal word Danger
Hazard statement Extremely flammable aerosol. Causes skin irritation. Causes serious eye irritation.
Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves. Wear eye/face protection.
Response If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) Static accumulating flammable liquids Classification not possible
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 3
Hazardous to the aquatic environment, long-term hazard Category 3

Supplemental information

Hazard statement Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Prevention Avoid release to the environment.

4.79% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 4.79% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Hazardous components			
Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	1 - 2.5

Hazardous components			
Chemical name	Common name and synonyms	CAS number	%
Diethylene Glycol Monobutyl Ether		112-34-5	1 - 2.5
Monoethanolamine		141-43-5	1 - 2.5
Propane		74-98-6	1 - 2.5
Anhydrous Ammonia		7664-41-7	0.1 - 1
Other components below reportable levels			90 - 100

#: This substance has workplace exposure limit(s).

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments The full text for all R-phrases is displayed in Section 16 of the MSDS.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Get medical attention if irritation develops and persists. Wash clothing separately before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Skin irritation. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the MSDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not handle or store near an open flame, heat or other sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not spray on a naked flame or any other incandescent material. Use only in well-ventilated areas. Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not re-use empty containers. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Keep away from heat, sparks and open flame. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the MSDS). Level 1 Aerosol.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Anhydrous Ammonia (CAS 7664-41-7)	PEL	35 mg/m ³ 50 ppm
Monoethanolamine (CAS 141-43-5)	PEL	6 mg/m ³ 3 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m ³ 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Anhydrous Ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Anhydrous Ammonia (CAS 7664-41-7)	STEL	27 mg/m ³ 35 ppm
	TWA	18 mg/m ³ 25 ppm
Butane (CAS 106-97-8)	TWA	1900 mg/m ³ 800 ppm
Monoethanolamine (CAS 141-43-5)	STEL	15 mg/m ³ 6 ppm
	TWA	8 mg/m ³ 3 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m ³ 1000 ppm

Biological limit values

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

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Hand protection

Wear protective gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Compressed liquefied gas.

Color

Colorless.

Form

Aerosol.

Physical state

Gas.

Boiling point

208.4 °F (98 °C) estimated

Flash point

-156.00 °F (-104.44 °C) Propellant estimated

Melting point/freezing point

Not available.

Odor

Pleasant.

pH	10.3 - 11.3 estimated
Solubility(ies)	Not available.
Vapor density	Not available.
Vapor pressure	75 - 85 psig @ 70F estimated
Viscosity	Not available.
Other information	
Specific gravity	0.973 estimated estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials. Fire or intense heat may cause violent rupture of packages.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Skin irritation. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Product	Species	Test Results
Foaming Rug And Upholstery Cleaner (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	48029.5742 mg/kg, estimated 206.2249 ml/kg, estimated
	Rat	59153 mg/kg
<i>Inhalation</i>		
LC50	Cat	260.9176 mg/l, If <1L: Consumer Commodity Hours, estimated
	Mouse	35685.0117 mg/l, 2 Hours, estimated 2485.0129 mg/l, 10 Minutes, estimated 1175.1786 mg/l, If <1L: Consumer Commodity Hours, estimated
	Rabbit	2465.7766 mg/l, If <1L: Consumer Commodity Hours, estimated
	Rat	92490.1953 mg/l, 15 Minutes, estimated 10021.8066 mg/l, 0.5 Hours, estimated 1783.7532 mg/l, If <1L: Consumer Commodity Hours, estimated 567.3375 mg/l, 4 Hours, estimated 262 mg/l/4h
LCL0	Cat	1713.8021 mg/l, If <1L: Consumer Commodity Hours, estimated
	Rabbit	1713.8021 mg/l, If <1L: Consumer Commodity Hours, estimated

Product	Species	Test Results
	Rat	489.6577 mg/l, If <1L: Consumer Commodity Hours, estimated
<i>Oral</i> LD50	Guinea pig	31548.1484 mg/kg, estimated
	Mouse	32447.2168 mg/kg, estimated
	Rabbit	90721.6484 mg/kg, estimated
		23481.2227 ml/kg, estimated
	Rat	283.5427 g/kg, estimated
<i>Other</i> LD50	Mouse	3665.522 mg/kg, estimated
	Rat	4316.1909 mg/kg, estimated
Components	Species	Test Results

Anhydrous Ammonia (CAS 7664-41-7)

Acute

Inhalation

LC50	Cat	0.746 mg/l, If <1L: Consumer Commodity Hours
	Mouse	7.105 mg/l, 10 Minutes
		3.36 mg/l, If <1L: Consumer Commodity Hours
		3.31 mg/l, 2 Hours
	Rabbit	7.05 mg/l, If <1L: Consumer Commodity Hours
	Rat	7.6 mg/l, 2 Hours
		5.1 mg/l, If <1L: Consumer Commodity Hours
LCL0	Cat	4.9 mg/l, If <1L: Consumer Commodity Hours
	Rabbit	4.9 mg/l, If <1L: Consumer Commodity Hours
	Rat	1.4 mg/l, If <1L: Consumer Commodity Hours

Oral

LD50	Rat	350 mg/kg
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Butane (CAS 106-97-8)

Acute

Inhalation

LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours

Diethylene Glycol Monobutyl Ether (CAS 112-34-5)

Acute

Dermal

LD50	Rabbit	2700 mg/kg
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Oral

LD50	Guinea pig	2000 mg/kg
	Mouse	2400 mg/kg
	Rabbit	2200 mg/kg
	Rat	4500 mg/kg

Other

LD50	Mouse	850 mg/kg
	Rat	500 mg/kg

Components	Species	Test Results
Monoethanolamine (CAS 141-43-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1025 mg/kg
<i>Oral</i>		
LD50	Guinea pig	620 mg/kg
	Mouse	700 mg/kg
	Rat	10.2 g/kg
<i>Other</i>		
LD50	Mouse	50 mg/kg
	Rat	67 mg/kg

Propane (CAS 74-98-6)

Acute

Inhalation

LC50	Rat	> 1442.847 mg/l, 15 Minutes 658 mg/l/4h
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Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Product	Species	Test Results
Foaming Rug And Upholstery Cleaner (CAS Mixture)		
Algae	IC50	Algae 824 mg/L, 72 Hours
Crustacea	EC50	Daphnia 3182 mg/L, 48 Hours
Fish	LC50	Fish 235 mg/L, 96 Hours

Components	Species	Test Results
Anhydrous Ammonia (CAS 7664-41-7)		
Aquatic		
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha) 0.43 - 0.47 mg/l, 96 hours
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)		
Crustacea	EC50	Daphnia 2850 mg/L, 48 Hours
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) 1300 mg/l, 96 hours
Monoethanolamine (CAS 141-43-5)		
Algae	IC50	Algae 15 mg/L, 72 Hours
Crustacea	EC50	Daphnia 65 mg/L, 48 Hours
Fish	LC50	Fish , 96 Hours
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 114 - 196 mg/l, 96 hours

Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Partition coefficient n-octanol / water (log Kow)	
Diethylene Glycol Monobutyl Ether	0.56
Monoethanolamine	-1.31
Propane	2.36
Butane	2.89
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Subsidiary class(es)	Not available.
Packing group	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Labels required	None
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Subsidiary class(es)	-
Packaging group	Not available.
Environmental hazards	No
Labels required	2.1
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	2.1
Subsidiary class(es)	-
Packaging group	Not available.
Environmental hazards	
Marine pollutant	No
Labels required	None
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Anhydrous Ammonia (CAS 7664-41-7) LISTED

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Anhydrous Ammonia (CAS 7664-41-7) 100 lbs

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

No

SARA 311/312 Hazardous chemical

No

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Anhydrous Ammonia (CAS 7664-41-7)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA)

Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Food and Drug Administration (FDA)

Not regulated.

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

Anhydrous Ammonia (CAS 7664-41-7) 500 lbs
Butane (CAS 106-97-8) 500 lbs
Propane (CAS 74-98-6) 500 lbs

US. Pennsylvania RTK - Hazardous Substances

Anhydrous Ammonia (CAS 7664-41-7)
Butane (CAS 106-97-8)
Monoethanolamine (CAS 141-43-5)
Propane (CAS 74-98-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-18-2014

Version # 01

Further information Not available.

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release 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 or in any process, unless specified in the text.

Revision Information Product and Company Identification: Product Review
Hazards Identification: US Hazard Categories
Composition / Information on Ingredients: Ingredients
Transport Information: Proper Shipping Name/Packing Group
Regulatory Information: United States
GHS: Classification