SAFETY DATA SHEET

1. Identification

GHS product identifier	**Formula 409 Carpet Cleaner Aerosol 12/22oz**
Version #	01
Issue date	07-02-2014
CAS #	Mixture
Recommended use	Stain remover
Recommended Restrictions	Not available.
Manufacturer	
Company name	The Clorox Company
Address	1221 Broadway Oakland, CA, 94612 USA
Email	-
Telephone	1-510-271-7000
Fax	-
Emergency telephone Number	For Medical Emergencies call: 1-800-446-1014 Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. Hazards identification

GHS classification

Physical hazards	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 3
	Reproductive toxicity	Category 1B
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3

GHS label elements

Signal word

Danger

Hazard statement

H280	Contains gas under pressure; may explode if heated.
H316	Causes mild skin irritation.
H360	May damage fertility or the unborn child.
H402	Harmful to aquatic life.

Precautionary statement

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P281	Use personal protective equipment as required.

Response

P308 + P313	IF exposed or concerned: Get medical advice/attention.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

Storage

P405	Store locked up.
P410 + P403	Protect from sunlight. Store in a well-ventilated place.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification None known.

Supplemental information 4.55% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

3. Composition/information on ingredients

Components	CAS #	Percent
2-Propanol	67-63-0	1-3
ISOBUTANE	75-28-5	1-3
Sodium dodecyl sulphate	151-21-3	0.5-1.5
BORAT, TETRA, GARAM SODIUM, PENTAHIDRAT	12179-04-3	0.1-1
Lauramine oxide	1643-20-5	0.1-1
Sodium nitrite	7632-00-0	0.1-1
Other components below reportable levels		93.35

4. First aid measures

First aid procedures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed Mild skin irritation.

Notes to physician Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General advice IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

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.

Protective equipment and precautions for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Protection of fire-fighters In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental precautions Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Methods for containment Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Collect spillage.

Methods for cleaning up

Ventilate the contaminated area. Wear appropriate protective equipment and clothing during clean-up. This product is miscible in water. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Do not allow material to contaminate ground water system. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Should be handled in closed systems, if possible. Pregnant or breastfeeding women must not handle this product. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

Storage

Store locked up. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls / personal protection

Control parameters

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-Propanol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	
BORAT, TETRA, GARAM SODIUM, PENTAHIDRAT (CAS 12179-04-3)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.
ISOBUTANE (CAS 75-28-5)	STEL	1000 ppm	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Propanol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Recommended monitoring procedures

Follow standard monitoring procedures.

Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye/face protection

Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

Hand protection

Wear appropriate chemical resistant gloves.

9. Physical and chemical properties

Appearance

Physical state

Liquid Foam Liquid Aerosol.

Color

White.

Form

Liquid. Compressed gas.

Odor

Floral

Odor threshold

Not available.

pH

9.8

Melting point/Freezing point

Not available.

Boiling point

Not available.

Flash point

482.0 °F (250.0 °C)

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Flammability limits in air, lower, % by volume	Not available.
Flammability limits in air, upper, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

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.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Toxicological data

Components	Species	Test Results
2-Propanol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	12800 mg/kg
Oral		
LD50	Dog	4797 mg/kg
	Mouse	3600 mg/kg
	Rabbit	5.03 g/kg
	Rat	4.7 g/kg
Other		
LD50	Mouse	1509 mg/kg
	Rat	1099 mg/kg
BORAT, TETRA, GARAM SODIUM, PENTAHIDRAT (CAS 12179-04-3)		
Acute		
Dermal		
LD50	Rabbit	> 1055 mg/kg
Inhalation		
LC50	Rat	> 0.002 mg/l, 4 Hours
Oral		
LD50	Rat	2660 mg/kg
ISOBUTANE (CAS 75-28-5)		
Acute		
Inhalation		
LC50	Mouse	52 mg/l, 1 Hours

Components	Species	Test Results
Sodium dodecyl sulphate (CAS 151-21-3)		
Acute		
Oral		
LD50	Rat	1288 mg/kg
Other		
LD50	Mouse	118 mg/kg
	Rat	118 mg/kg
Sodium nitrite (CAS 7632-00-0)		
Acute		
Inhalation		
LC50	Rat	5.5 mg/l, 4 Hours
Oral		
LD50	Mouse	175 mg/kg
	Rabbit	186 mg/kg
	Rat	85 mg/kg
Other		
LD50	Mouse	158 mg/kg
	Rat	65 mg/kg

Routes of exposure Inhalation. Skin contact. Eye contact.

Toxicological information Occupational exposure to the substance or mixture may cause adverse effects.

Skin corrosion/irritation Causes mild skin irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

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

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

Carcinogenicity

ACGIH Carcinogens

2-Propanol (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.
BORAT, TETRA, GARAM SODIUM, PENTAHIDRAT (CAS 12179-04-3)	A4 Not classifiable as a human carcinogen.

Reproductive toxicity May damage fertility or the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Chronic effects Prolonged inhalation may be harmful.

Symptoms Mild skin irritation.

12. Ecological information

Ecotoxicological data

Components		Species	Test Results
2-Propanol (CAS 67-63-0)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
BORAT, TETRA, GARAM SODIUM, PENTAHIDRAT (CAS 12179-04-3)			
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	104 mg/l, 96 hours
Sodium dodecyl sulphate (CAS 151-21-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia obtusa)	9.2 - 10.4 mg/l, 48 hours
Fish	LC50	Carp, hawk fish (Cirrhinus mrigala)	1.36 mg/l, 96 hours

Components		Species	Test Results
Sodium nitrite (CAS 7632-00-0)			
Aquatic			
Crustacea	EC50	Greasyback shrimp (Metapenaeus ensis)	16.14 - 26.61 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.15 - 0.25 mg/l, 96 hours

Ecotoxicity Harmful to aquatic life.

Environmental effects Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence / degradability No data is available on the degradability of this product.

Bioaccumulation No data available.

Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-Propanol	0.05
ISOBUTANE	2.76
Sodium dodecyl sulphate	1.6

Aquatic toxicity Not known.

Mobility This product is miscible in water.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods Consult authorities before disposal. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

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 Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

ADR

UN number 1950
UN proper shipping name AEROSOLS, asphyxiant
Transport hazard class(es)
Class 2.2
Subsidiary risk -
Label(s) 2.2
Hazard No. (ADR) Not available.
Tunnel restriction code E
Packing group Not applicable.
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

UN number 1950
UN proper shipping name AEROSOLS, asphyxiant
Transport hazard class(es)
Class 2.2
Subsidiary risk -
Label(s) 2.2
Packing group Not applicable.
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number 1950
UN proper shipping name Aerosols, non-flammable
Transport hazard class(es)
Class 2.2

Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	2L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	1950
UN proper shipping name	AEROSOLS, asphyxiant
Transport hazard class(es)	
Class	2
Subsidiary risk	5A
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

ADR; IATA; RID

15. Regulatory information

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)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply 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

Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.