

## SAFETY DATA SHEET

Recommended use	CalClean Aerosol (4081-75) Not available Coil Cleaner Recommended None known. Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHI 2. Hazards Identifica	
Recommended use restrictions	Coil Cleaner <b>Recommended</b> None known. Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHI	
restrictions	None known. Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHI	
	Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHI	
Manufacturer	2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHI	
	2 Hozarda Islandifia	
	2. mazaros identifica	ation
Physical hazards	Gases under pressure	Liquefied gas
-	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word Hazard statement	Danger Contains gas under pressure; may explor May be corrosive to metals. Causes severe skin burns and eye dama	
Precautionary statement		
Prevention	Keep only in original container. Wash thoroughly after handling. Wear pro protection. Do not breathe mist or vapor.	otective gloves/protective clothing/eye protection/face
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. Specific treatment (see this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Absorb spillage to prevent material damage.	
Storage	Protect from sunlight. Store in a well-ventilated place. Store in corrosive resistant container with a resistant inner liner. Store locked up.	
Disposal	Dispose of contents/container in accordan	nce with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	Not applicable.	

## 3. Composition/Information on Ingredients

Chemical name	Common name and synonyms	CAS number	%
2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-, potassium salt		68127-33-3	1 - 5
Alcohols, C9-11, ethoxylated		68439-46-3	1 - 5
Butane		106-97-8	1 - 5

Chemical name	Common name and synonyms	CAS number	%
Propane		74-98-6	1 - 5
Sodium metasilicate		6834-92-0	1 - 5
Sodium tripolyphosphate		7758-29-4	1 - 5
Composition comments	US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.		
	4. First Aid Measures		
Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor/.		
Skin contact	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.		
Eye contact	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.		
Ingestion	If swallowed: Rinse mouth. Do NOT induce vomi doctor/physician.	iting. Immediately call a PO	DISON CENTER or
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.		
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.		
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Do not puncture or incinerate container. Do not store at temperatures above 49°C. Wear rubber gloves and chemical splash goggles.		
	5. Fire Fighting Measures		
Suitable extinguishing media	Dry chemical. Carbon dioxide.		
Unsuitable extinguishing media	None known.		
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Con containers with flooding quantities of water until well after fire is out. Firefighters should wear a self-contained breathing apparatus.		
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.		
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. 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	Cool containers exposed to flames with water un	ntil well after the fire is out.	
Hazardous combustion products	May include and are not limited to: Oxides of car	bon.	
Explosion data			
Sensitivity to mechanical impact	Not available.		
Sensitivity to static discharge	Not available.		
	6. Accidental Release Measu	res	
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of spill/leak. Wear appropriate protective equipmen damaged containers or spilled material unless w	t and clothing during clear	n-up. Do not touch

emergency procedures

keep unnecessary personnel away. Keep out of low areas. 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.

Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Dike far ahead of spill for later disposal. Absorb spillage to prevent material damage. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.		
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge i drains, water courses or onto the ground.		
	7. Handling and	Storage	
Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Keep container tightly closed.		
Conditions for safe storage, including any incompatibilities	Store locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near ar open flame, heat or other sources of ignition. Protect from sunlight. Avoid exposure to long periods of sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Keep container tightly closed. 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). Keep out of reach of children. Do not store at temperatures above 49 °C (120.2°F).		
	8. Exposure Controls/Pe	rsonal Protection	
Occupational exposure limits US. OSHA Table Z-1 Limits Components	for Air Contaminants (29 CFR 1910.1 Type	1000) Value	
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm	
US. ACGIH Threshold Limit Components	Values Type	Value	
Butane (CAS 106-97-8)	STEL	1000 ppm	
US. NIOSH: Pocket Guide to	Chemical Hazards		
Components	Туре	Value	
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm	
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm	
Biological limit values	No biological exposure limits noted f	for the ingredient(s).	
Appropriate 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.		
Individual protection measures,	such as personal protective equipm	nent	
Eye/face protection	Wear chemical goggles.		
Skin protection			
Hand protection	Rubber gloves. Confirm with a repu		
Other		t clothing. As required by employer code.	
Respiratory protection	· -	ay be exceeded, use an approved NIOSH respirator.	
Thermal hazards	Not applicable.		
General hygiene considerations	When using do not smoke. Wash hands and face before breaks and immediately after handling the product.		
	9. Physical and Chem	ical Properties	
Appearance	Clear		
Physical state	Gas.		
i nysicai siale	000.		

Form	Aerosol
Color	Colorless
Odor	Odorless
Odor threshold	Not available.
рН	13 - 14
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	1.050 - 1.150 (liquid)
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	plosive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	48 - 58 psig @ 70°F
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Flame projection	0
Flammability (flash back)	No
Heat of combustion	4.33 kJ/g
VOC (Weight %)	5.0% (US federal), 5.0% (CARB/OTC/LADCO)
	10. Stability and Reactivity
Reactivity	Reacts violently with acids.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	This product may react with oxidizing agents. Aerosol containers are unstable at temperatures above 49°C (120.2°F).
Incompatible materials	Oxidizing agents. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
	11. Toxicological Information
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Information on likely routes of	exposure
Ingestion	Causes digestive tract burns.
Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.

Skin contact Causes severe skin burns.

**Eye contact** Causes serious eye damage.

Symptoms related to the<br/>physical, chemical and<br/>toxicological characteristicsBurning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may<br/>include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including<br/>blindness could result.

Acute toxicity	Causes burns.	
Components	Species	Test Results
	, l, 5(or 6)-carboxy-4-hexyl-, potassium salt (CAS 68127	-33-3)
Acute		,
Inhalation		
LC50	Not available	
Oral		
LD50	Not available	
Alcohols, C9-11, ethoxylated (	CAS 68439-46-3)	
Acute		
Dermal		
LD50	Rabbit	2000 mg/kg
	Rat	2000 mg/kg
Inhalation		
LC50	Rat	5 mg/l/4h
Oral		
LD50	Rat	1200 mg/kg
Butane (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	276000 ppm, 4 Hours
		658 mg/l/4h
Oral		
LD50	Not available	
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Rat	> 1442.8 mg/l, 15 Minutes
Oral		
LD50	Not available	
Sodium metasilicate (CAS 683	4-92-0)	
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	2400 mg/kg
	Rat	1153 mg/kg
Sodium tripolyphosphate (CAS	3 7758-29-4)	
Acute		
Dermal		
LD50	Rabbit	7940 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	3100 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	

Serious eye damage/eye irritation	Causes serious eye damage.		
Corneal opacity value	Not available.		
Iris lesion value	Not available.		
Conjunctival reddening value	Not available.		
Conjunctival oedema value	Not available.		
Recover days	Not available.		
Respiratory or skin sensitization			
<b>Respiratory sensitization</b>	Not available.		
Skin sensitization	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.		
Germ cell mutagenicity	Non-hazardous by WHMIS/OSHA criteria.		
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.		
Carcinogenicity No	n-hazardous by WHMIS/OSHA criteria.		
Reproductive toxicity Non-h	azardous by WHMIS/OSHA criteria.		
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.		
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	Not classified.		
Aspiration hazard	Not likely, due to the form of the product.		
Chronic effects	Prolonged inhalation may be harmful.		
Further information	Not available.		
Name of Toxicologically Synergistic Products	Not available.		

## 12. Ecological Information

Ecotoxicity	See below			
Components		Species	Test Results	
Alcohols, C9-11, ethoxylated	d (CAS 68439-46	õ-3)		
Fish		Rainbow Trout	70.7 mg/l, 96 Hours	
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	2.9 - 8.5 mg/l, 48 hours	
Fish	LC50	Fathead minnow (Pimephales promelas)	6 - 12 mg/l, 96 hours	
Sodium metasilicate (CAS 6	834-92-0)			
Aquatic				
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.28 - 0.57 mg/l, 48 hours	
Fish	LC50	Western mosquitofish (Gambusia affinis)	1800 mg/l, 96 hours	
Sodium tripolyphosphate (C/	AS 7758-29-4)			
Aquatic				
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	238.35 - 321.01 mg/l, 48 hours	
Persistence and degradability	No data is av	No data is available on the degradability of this product.		
Bioaccumulative potential	No data avai	No data available.		
Mobility in soil	No data avai	No data available.		
Mobility in general	Not available	·.		
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 instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. 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.			

Dispose in accordance with all applicable regulations.

Hazardous waste code	D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] 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	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. Do not re-use empty containers.

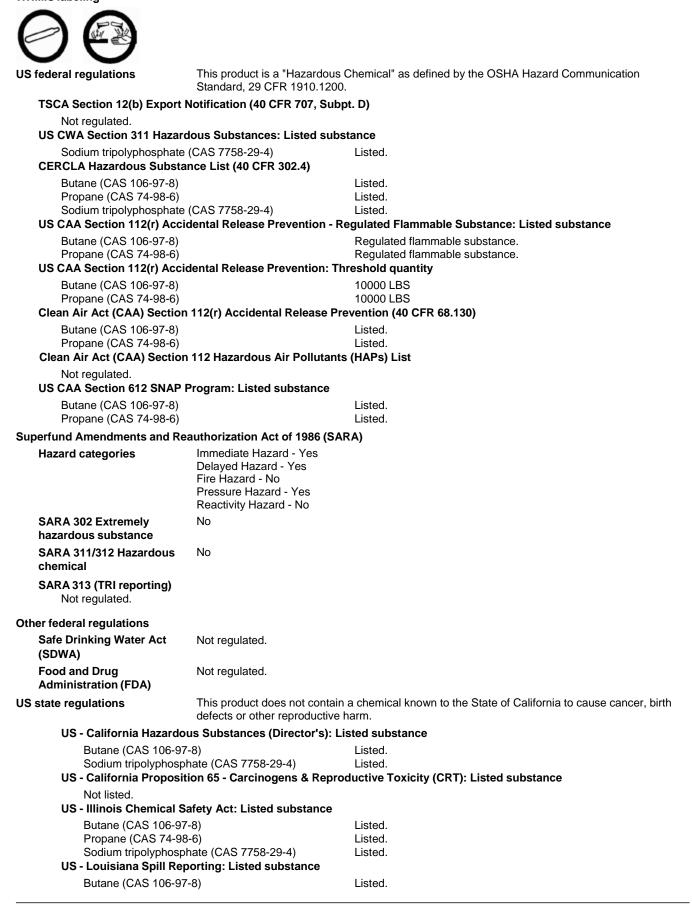
	14. Transport Information
U.S. Department of Transporta	tion (DOT)
Basic shipping requirement	nts:
UN number	UN1950
Proper shipping name Hazard class	Aerosols, corrosive, Packing Group II or III, (each not exceeding 1 L capacity) Limited Quantity - US
ransportation of Dangerous (	Goods (TDG - Canada)
Basic shipping requirement	nts:
UN number	UN1950
Proper shipping name Hazard class	AEROSOLS, non-flammable, containing substances in Class 8, packing group III Limited Quantity - Canada
ATA/ICAO (Air)	
Basic shipping requirement	nts:
UN number	UN1950
Proper shipping name Hazard class	Aerosols, non-flammable, containing substances in Class 8, Packing Group III Limited Quantity - IATA
MDG (Marine Transport)	
Basic shipping requirement	nts:
UN number	UN1950
Proper shipping name	AEROSOLS
Hazard class	Limited Quantity - IMDG
ATA	
•	15. Regulatory Information
Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the SDS contains all the information required by the Controlled Products Regulations.
Canada DSL Challenge Su	bstances: Listed substance
Butane (CAS 106-97-8)	Listed.
Canada NPRI VOCs with A	dditional Reporting Requirements: Mass reporting threshold/Identification Number
Butane (CAS 106-97-8)	
Propane (CAS 74-98-6) Canada WHMIS Ingredient	Disclosure: Threshold limits

1 %

Controlled

Class A - Compressed Gas, Class E - Corrosive Material

WHMIS status WHMIS classification WHMIS labeling



Propane (CAS 7	Propane (CAS 74-98-6)		
Sodium tripolyph	Sodium tripolyphosphate (CAS 7758-29-4)		
US - Minnesota Haz	Subs: Listed substance		
Butane (CAS 106-97-8)		Listed.	
Propane (CAS 7	<sup>′</sup> 4-98-6)	Listed.	
US - New Jersey RT	FK - Substances: Listed substances	ce	
Butane (CAS 10	6-97-8)	Listed.	
Propane (CAS 7	74-98-6)	Listed.	
US - New York Rele	ase Reporting: Hazardous Subs	ances: Listed substance	
Sodium tripolyph	nosphate (CAS 7758-29-4)	Listed.	
US - Texas Effects	Screening Levels: Listed substar	nce	
Alcohols, C9-11	, ethoxylated (CAS 68439-46-3)	Listed.	
Butane (CAS 10	6-97-8)	Listed.	
Propane (CAS 7	74-98-6)	Listed.	
	Sodium metasilicate (CAS 6834-92-0)		
Sodium tripolyphosphate (CAS 7758-29-4)		Listed.	
US. Massachusetts	RTK - Substance List		
Butane (CAS 106-97-8)		Listed.	
Propane (CAS 74-98-6)		Listed.	
Sodium tripolyphosphate (CAS 7758-29-4)		Listed.	
,	TK - Hazardous Substances	Listed.	
	Butane (CAS 106-97-8)		
Propane (CAS 74-98-6)		Listed.	
Sodium tripolyphosphate (CAS 7758-29-4)		Listed.	
US. Rhode Island R			
Butane (CAS 106-97-8)		Listed.	
Propane (CAS 74-98-6)		Listed.	
Sodium tripolypr	nosphate (CAS 7758-29-4)	Listed.	
Inventory status			
Country(s) or region	Inventory name		On inventory (yes/no)*
Canada	Domestic Substances List (I	DSL)	Yes
Canada Non Domostic Substances List (NDSL)			No

Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

LEGEND	HEALTH / 3
Severe4Serious3Moderate2Slight1Minimal0	FLAMMABILITY 1   PHYSICAL HAZARD 0   PERSONAL PROTECTION X
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.
Issue date	27-February-2015
Effective date	28-February-2015
Expiry date	28-February-2018
Further information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.
Prepared by	Nu-Calgon Technical Service Phone: (314) 469-7000
Other information	This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

## 16. Other Information