

SAFETY DATA SHEET

1. Product and Company Identification

Product identifier Aerosol Nu-Brite (4291-18)

Other means of identification Recommended use

Cleaner/Degreaser

Recommended restrictions

None known.

Not available

Manufacturer

Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US

Phone: 314-469-7000 / 800-554-5499

Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards Flammable aerosols

Gases under pressure

Corrosive to metals

Skin corrosion/irritation

Serious eye damage/eye irritation

Liquefied gas

Category 1

Category 1

Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Health hazards



Signal word Danger

Hazard statement Flammable aerosol.

Contains gas under pressure; may explode if heated.

May be corrosive to metals.

Causes severe skin burns and eye damage.

Precautionary statement

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. Keep only in original container. Wash thoroughly after handling. Wear protective gloves/protective

Category 2

clothing/eye protection/face protection.

Response 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.

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. Specific treatment (see

this label).

Absorb spillage to prevent material damage.

Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a

well-ventilated place. Store locked up.

Store in corrosive resistant container with a resistant inner liner.

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

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information Not applicable.

3. Composition/Information on Ingredients

Mixture

Chemical nameCommon name and synonymsCAS number%Sodium hydroxide1310-73-29.5

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Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	2.95
Propane		74-98-6	2.05
Monoethanolamine		141-43-5	1.9

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.

Eve 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.

If swallowed: Rinse mouth, Do NOT induce vomiting, Ingestion

Most important

General information

symptoms/effects, acute and delayed

Indication of immediate medical attention and special treatment needed

include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may

immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Suitable extinguishing media

Unsuitable extinguishing media

Dry chemical. Carbon dioxide. Fog.

None known.

Specific hazards arising from

the chemical

Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Special 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.

Fire-fighting equipment/instructions 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. 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. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes.

General fire hazards

Hazardous combustion

products

Flammable aerosol.

May include and are not limited to: Oxides of nitrogen. Oxides of carbon.

Explosion data

Sensitivity to mechanical

impact

Not available.

Sensitivity to static

discharge

Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and 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. Ventilate closed spaces before entering them. 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. 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. Scoop up used absorbent into drums or other appropriate container. 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

Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. 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. Avoid contact with eyes, skin and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Occupational exposure limits

Store locked up. Contents under pressure. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from heat, sparks and open flame. Avoid exposure to long periods of sunlight. Store in corrosive resistant container with a resistant inner liner. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

Value

8. Exposure Controls/Personal Protection

-	•	
US. OSHA	Table Z-1 Limits for Air C	ontaminants (29 CFR 1910.1000)
Componer	nts	Туре

Monoethanolamine (CAS 141-43-5)	PEL	6 mg/m3
,		3 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Туре	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards			
Components	Туре	Value	
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm	
Monoethanolamine (CAS 141-43-5)	STEL	15 mg/m3	
		6 ppm	
	TWA	8 mg/m3	
		3 ppm	
Propane (CAS 74-98-6)	TWA	1800 mg/m3	
		1000 ppm	
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3	

Biological limit values

No biological exposure limits noted 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 equipment

Eye/face protection Chemical goggles are recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Other

Wear positive pressure self-contained breathing apparatus (SCBA). In case of insufficient Respiratory protection

ventilation, wear suitable respiratory equipment.

Thermal hazards

General hygiene considerations

Not applicable.

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.

Physical state

Aerosol. Spray **Form** Clear Green Color Odor Caustic **Odor threshold** Not available. pН 13.0 ± 0.5 Not available. Melting point/freezing point Not available. Initial boiling point and boiling

range

Not available. Pour point Not available Specific gravity Partition coefficient Not available.

(n-octanol/water)

Flash point Not available **Evaporation** rate < 1 (Ether = 1)**Flammability** (solid, gas) Not applicable. Upper/lower flammability or explosive limits

Flammability limit - lower

Flammability limit - upper

Not available

Not available

(%)

Explosive limit - lower (%) Not available. Not available. Explosive limit - upper (%) 481 kPa Vapor pressure Vapor density Not available. Not available. Relative density Not available. Solubility(ies) Not available **Auto-ignition temperature** Not available.

Decomposition temperature Viscosity

Not available.

Other information

3.23 kJ/g Heat of combustion

10. Stability and Reactivity

Reactivity

Strong acids.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

Chemical stability

Material is stable under normal conditions.

Conditions to avoid

Do not mix with other chemicals.

Incompatible materials

Strong oxidizing agents. Acids. Reducing agents. Soft metals.

Hazardous decomposition

products

May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

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.

Skin contact Causes severe skin burns. Eye contact Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Burning pain and severe corrosive skin damage. Causes serious eye damage. Permanent eye damage including blindness could result. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity

Components Species Test Results

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

Monoethanolamine (CAS 141-43-5)

Acute

Dermal

LD50 Rabbit 1018 mg/kg 1000 mg/kg

Inhalation

LC50 Mouse 1210 mg/m3, 4 Hours

484 ppm, 4 Hours 1.2 mg/L, 4 Hours

Oral

LD50 Guinea pig 620 mg/kg

Mouse 1475 mg/kg 700 mg/kg
Rat 1970 mg/kg

1720 mg/kg

Propane (CAS 74-98-6)

Acute

Inhalation

LC50 Rat > 1442.8 mg/L, 15 Minutes

Oral

LD50 Not available

Sodium hydroxide (CAS 1310-73-2)

Acute

Dermal

LD50 Rabbit 1350 mg/kg

Inhalation

LC50 Not available

Oral

LD50 Not available

Skin corrosion/irritation Causes severe skin burns and eye damage.

Exposure minutesNot available.Erythema valueNot available.Oedema valueNot available.

Serious eye damage/eye

irritation

Causes serious eye damage.

Corneal opacity value Not available.

Iris lesion value

Conjunctival reddening

Not available.

Not available.

value

Not available. Conjunctival oedema value Not available. Recover days

Respiratory or skin sensitization

Respiratory sensitization Not available.

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

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

mutagenic or genotoxic.

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

mutagenic or genotoxic.

This product is not considered to be a carcinogen by IARC, NTP, or OSHA. Carcinogenicity Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Specific target organ toxicity single exposure

Not available. Not classified.

Specific target organ toxicity -

Not classified.

repeated exposure

Not likely, due to the form of the product.

Aspiration hazard Prolonged inhalation may be harmful. May be harmful if absorbed through skin. **Chronic effects**

Not available. **Further information**

Name of Toxicologically **Synergistic Products**

Not available.

12 Ecological Information

12. Ecological Information			
Ecotoxicity	See below		
Components		Species	Test Results
Monoethanolamine (CAS 14	1-43-5)		
Algae	IC50	Algae	15 mg/L, 72 Hours
Crustacea	EC50	Daphnia	65 mg/L, 48 Hours
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	114 - 196 mg/L, 96 hours
Sodium hydroxide (CAS 131	0-73-2)		
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/L, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	125 mg/L, 96 hours
Persistence and degradability	No data is ava	ailable on the degradability of this product.	
Bioaccumulative potential	No data availa	able.	
Mobility in soil	No data availa	able.	

Mobility in soil No data available. Mobility in general Not available.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation Other adverse effects

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.

Local disposal 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).

Empty containers should be taken to an approved waste handling site for recycling or disposal. Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Do not re-use empty containers.

14. Transport Information

Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of

the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name LTD QTY

Hazard class Limited Quantity - US Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN1950

Proper shipping name AEROSOLS, non-flammable, containing substances in Class 8, packing group II

Hazard class Limited Quantity - Canada

Special provisions 80

IATA/ICAO (Air)

General

Basic shipping requirements:

UN number UN1950

Aerosols, non-flammable, containing substances in Class 8, Packing Group II Proper shipping name

Hazard class 2.2 Subsidiary hazard class 8 **ERG** code 2C

IMDG (Marine Transport)

Basic shipping requirements:

UN1950 **UN** number **AEROSOLS** Proper shipping name

Limited Quantity - US **Hazard class**

DOT; IMDG; TDG



IATA



15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Canada DSL Challenge Substances: Listed substance

Butane (CAS 106-97-8) Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Butane (CAS 106-97-8) 1 TONNES Propane (CAS 74-98-6) 1 TONNES

Canada WHMIS Ingredient Disclosure: Threshold limits

Butane (CAS 106-97-8) 1 % Monoethanolamine (CAS 141-43-5) 1 % Sodium hydroxide (CAS 1310-73-2) 1 %

WHMIS status Controlled Material

WHMIS labeling







US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

US CWA Section 311 Hazardous Substances: Listed substance Sodium hydroxide (CAS 1310-73-2)

CERCLA Hazardous Substance List (40 CFR 302.4)

Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Listed. Sodium hydroxide (CAS 1310-73-2) Listed. US CAA Section 111 Volatile Organic Compounds: Listed substance

Monoethanolamine (CAS 141-43-5) Listed.

US CAA Section 112(r) Accidental Release Prevention - Regulated Flammable Substance: Listed substance

10000 LBS

Butane (CAS 106-97-8) Regulated flammable substance. Propane (CAS 74-98-6) Regulated flammable substance.

US CAA Section 112(r) Accidental Release Prevention: Threshold quantity Butane (CAS 106-97-8) 10000 LBS

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

Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Listed.

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

Propane (CAS 74-98-6)

US CAA Section 612 SNAP Program: Listed substance

Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes **Hazard categories**

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

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous

chemical

Nο

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Water Act (CWA) Section 112(r) (40 CFR

Hazardous substance

68.130)

Safe Drinking Water Act

(SDWA)

Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Hazardous Substances (Director's): Listed substance

Butane (CAS 106-97-8) Listed. Monoethanolamine (CAS 141-43-5) Listed. Sodium hydroxide (CAS 1310-73-2) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

US - Illinois Chemical Safety Act: Listed substance

Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Listed. Sodium hydroxide (CAS 1310-73-2) Listed.

US - Louisiana Spill Reporting: Listed substance

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

Sodium hydroxide (CAS 1310-73-2)

Listed.

Listed.

US - Minnesota Haz Subs: Listed substance

Butane (CAS 106-97-8)

Monoethanolamine (CAS 141-43-5)

Propane (CAS 74-98-6)

Sodium hydroxide (CAS 1310-73-2)

Listed.

US - New Jersey RTK - Substances: Listed substance

Butane (CAS 106-97-8)

Monoethanolamine (CAS 141-43-5)

Propane (CAS 74-98-6)

Sodium hydroxide (CAS 1310-73-2)

Listed.

Listed.

US - New York Release Reporting: Hazardous Substances: Listed substance

Sodium hydroxide (CAS 1310-73-2) Listed.

US - Texas Effects Screening Levels: Listed substance

Butane (CAS 106-97-8)

Monoethanolamine (CAS 141-43-5)

Propane (CAS 74-98-6)

Sodium hydroxide (CAS 1310-73-2)

Listed.

US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)

Monoethanolamine (CAS 141-43-5)

Propane (CAS 74-98-6)

Sodium hydroxide (CAS 1310-73-2)

Listed.

US. Pennsylvania RTK - Hazardous Substances

Butane (CAS 106-97-8)

Monoethanolamine (CAS 141-43-5)

Propane (CAS 74-98-6)

Sodium hydroxide (CAS 1310-73-2)

Listed.

US. Rhode Island RTK

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

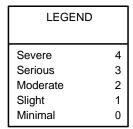
Sodium hydroxide (CAS 1310-73-2)

Listed.

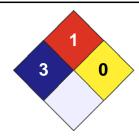
Inventory status

Country(s) or regionInventory nameOn inventory (yes/no)*CanadaDomestic Substances List (DSL)YesCanadaNon-Domestic Substances List (NDSL)NoUnited States & Puerto RicoToxic Substances Control Act (TSCA) InventoryYes

16. Other Information







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 date18-September-2015Effective date18-September-2015Expiry date18-September-2018

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

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 (USS) adaption of the Clabelly Hazard System of Classification and Labeling of

Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of

Chemicals (GHS).

This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.