Niagara Spray Starch (aerosol)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Revision Date: 06/27/2016 Date of Issue: 06/27/2016 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Niagara Spray Starch (aerosol)

Product Code: 08102, 08120, 08125, 08134, 08150, 08177, 08182, 08185, 08192, 08246, 08247, 08248, 08249, 08950

*This document is intended to be used for safety in the workplace only, and is not a consumer document.

1.2. Intended Use of the Product

Fabric finish.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Niagara Starch Company
1025 W 8th St.
Kansas City, MO 64101 USA
T: 1-816-329-1300
www.niagarastarch.com

1.4. Emergency Telephone Number

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

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US Classification

Compressed gas H280

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS04

Signal Word (GHS-US) : Warning

Hazard Statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated.

Precautionary Statements (GHS-US) : P410+P403 - Protect from sunlight. Store in a well-ventilated place.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contact with gas escaping the container can cause frostbite. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

2.4. Unknown Acute Toxicity (GHS-US) No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)
Butane	(CAS No) 106-97-8	1 - 4
Propane	(CAS No) 74-98-6	0.1 - 1
Isobutane	(CAS No) 75-28-5	0.1 – 0.5
Polyethylene glycol	(CAS No) 25322-68-3	< 0.1

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].
A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If frostbite or freezing occurs, immediately flush with plenty of lukewarm water to GENTLY warm the affected area. Do not use hot water. Do not rub affected area. Get immediate medical attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Contact with gas escaping the container can cause frostbite.

Inhalation: Contains a small amount of gases that are simple asphyxiants. If a large amount of gas is released in a confined space, gas could be toxic as a simple asphyxiant by displacing oxygen from the air. Prolonged exposure may cause irritation.

Skin Contact: May cause an allergic reaction in sensitive individuals. Contact with gas escaping the container can cause frostbite and freeze burns.

Eye Contact: Contact with gas escaping the container can cause frostbite, freeze burns, and permanent eye damage.

Ingestion: Not considered a potential route of exposure, but contact with gas escaping the container can cause freeze burns and frostbite.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: In accordance with subsections 31.4 and 31.5 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, for Ignition distance test, and Enclosed space ignition test this material is not classified as a flammable aerosol.

Explosion Hazard: Container may explode in heat of fire.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Remove containers from fire area if this can be done without risk. Do not breathe fumes from fires or vapors from decomposition. Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Thermal decomposition generates: Carbon oxides (CO, CO_2). Nitrogen oxides. Sodium oxides. Formaldehyde. Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapors.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, gas). Keep away from open flames, hot surfaces and sources of ignition.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Evacuate unnecessary personnel, isolate, and ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Stop leak, if possible without risk. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Isolate area until gas has dispersed. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Do not pressurize, cut, or weld containers. Ruptured cylinders may rocket. Contact with the product may cause cold burns or frostbite.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing gas.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep only in original container. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Products: Strong acids, strong bases, strong oxidizers. Water reactive materials. Chlorine.

7.3. Specific End Use(s)

Fabric finish.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Polyethylene glycol (25322-68-3)		
USA AIHA	WEEL TWA (mg/m³)	10 mg/m³ (MW>200, aerosol)
Butane (106-97-8)		
Mexico	OEL TWA (mg/m³)	1900 mg/m³
Mexico	OEL TWA (ppm)	800 ppm
USA ACGIH	ACGIH STEL (ppm)	1000 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	800 ppm
Alberta	OEL TWA (ppm)	1000 ppm
British Columbia	OEL STEL (ppm)	750 ppm
British Columbia	OEL TWA (ppm)	600 ppm
Manitoba	OEL STEL (ppm)	1000 ppm

New Brunswick	OEL TWA (mg/m³)	1900 mg/m³
New Brunswick	OEL TWA (ppm)	800 ppm
Newfoundland & Labrador	OEL STEL (ppm)	1000 ppm
Nova Scotia	OEL STEL (ppm)	1000 ppm
Nunavut	OEL STEL (mg/m³)	2576 mg/m³
Nunavut	OEL STEL (ppm)	1000 ppm
Nunavut	OEL TWA (mg/m³)	1901 mg/m³
Nunavut	OEL TWA (ppm)	800 ppm
Northwest Territories	OEL STEL (ppm)	1250 ppm
Northwest Territories	OEL TWA (ppm)	1000 ppm
Ontario	OEL STEL (ppm)	1000 ppm
Ontario	OEL TWA (ppm)	800 ppm
Prince Edward Island	OEL STEL (ppm)	1000 ppm
Québec	VEMP (mg/m³)	1900 mg/m³
Québec	VEMP (ppm)	800 ppm
Saskatchewan	OEL STEL (ppm)	1250 ppm
Saskatchewan	OEL TWA (ppm)	1000 ppm
Yukon	OEL STEL (mg/m³)	1600 mg/m³
Yukon	OEL STEL (ppm)	750 ppm
Yukon	OEL TWA (mg/m³)	1400 mg/m³
Yukon	OEL TWA (ppm)	600 ppm

Propane (74-98-6)		
USA OSHA	OSHA PEL (TWA) (mg/m³)	1800 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1800 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA IDLH	US IDLH (ppm)	2100 ppm (10% LEL)
Alberta	OEL TWA (ppm)	1000 ppm
British Columbia	OEL TWA (ppm)	1000 ppm
Northwest Territories	OEL STEL (ppm)	1250 ppm
Northwest Territories	OEL TWA (ppm)	1000 ppm
Québec	VEMP (mg/m³)	1800 mg/m³
Québec	VEMP (ppm)	1000 ppm
Saskatchewan	OEL STEL (ppm)	1250 ppm
Saskatchewan	OEL TWA (ppm)	1000 ppm

Isobutane (75-28-5)		
USA ACGIH	ACGIH STEL (ppm)	1000 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	800 ppm
Manitoba	OEL STEL (ppm)	1000 ppm
Newfoundland & Labrador	OEL STEL (ppm)	1000 ppm
Nova Scotia	OEL STEL (ppm)	1000 ppm
Northwest Territories	OEL STEL (ppm)	1250 ppm
Northwest Territories	OEL TWA (ppm)	1000 ppm
Ontario	OEL STEL (ppm)	1000 ppm
Ontario	OEL TWA (ppm)	800 ppm
Prince Edward Island	OEL STEL (ppm)	1000 ppm
Saskatchewan	OEL STEL (ppm)	1250 ppm
Saskatchewan	OEL TWA (ppm)	1000 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves. If material is cold, wear thermally resistant protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Thermal Hazard Protection: Wear thermally resistant protective clothing.

Other Information: When using, do not eat, drink or smoke

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Liquid
Appearance	:	Clear to hazy aerosol
Odor	:	Not available
Odor Threshold	:	Not available
pH	:	9 - 10
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available
Boiling Point	:	212 °F (100 °C)
Flash Point	:	Not available
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20°C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	1 g/ml
Solubility	:	Not available
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available
Explosive Properties	:	Contains gas under pressure; may explode if heated
Explosion Data - Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact.
Explosion Data - Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Contains gas under pressure; may explode if heated.

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials: Strong acids, strong bases, strong oxidizers. Water reactive materials. Chlorine.

10.6. Hazardous Decomposition Products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

pH: 9 - 10

Serious Eye Damage/Irritation: Not classified

pH: 9 - 10

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Contains a small amount of gases that are simple asphyxiants. If a large amount of gas is released in a confined space, gas could be toxic as a simple asphyxiant by displacing oxygen from the air. Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: May cause an allergic reaction in sensitive individuals. Contact with gas escaping the container can cause frostbite and freeze burns.

Symptoms/Injuries After Eye Contact: Contact with gas escaping the container can cause frostbite, freeze burns, and permanent eye damage.

Symptoms/Injuries After Ingestion: Not considered a potential route of exposure, but contact with gas escaping the container can cause freeze burns and frostbite.

Chronic Symptoms: None expected under normal conditions of use.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Polyethylene glycol (25322-68-3)	
LD50 Oral Rat	47000 mg/kg
LD50 Dermal Rabbit	> 20 ml/kg
Butane (106-97-8)	
LC50 Inhalation Rat	30957 mg/m³ (Exposure time: 4 h)
Propane (74-98-6)	
LC50 Inhalation Rat	658 mg/l/4h
Isobutane (75-28-5)	
LC50 Inhalation Rat	658 mg/l/4h
LC50 Inhalation Rat	11000 ppm

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

12.2. Persistence and Degradability

Niagara Spray Starch (aerosol)

Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Niagara Spray Starch (aerosol)	
Bioaccumulative Potential	Not established.
Butane (106-97-8)	
Log Pow	2.89
Propane (74-98-6)	
Log Pow	2.3
Isobutane (75-28-5)	
BCF Fish 1	1.57 - 1.97
Log Pow	2.88 (at 20 °C)

12.4. Mobility in Soil
Not available

12.5. Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions. Do not puncture or incinerate container.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT
Proper Shipping Name : AEROSOLS non-flammable, (each not exceeding 1 L capacity)
Hazard Class : 2.2
Identification Number : UN1950
Label Codes : 2.2

ERG Number : 126

Shipped under 49 CFR, Packaging Exception 173.306 - Consumer Commodities, Limited Quantities of Compressed Gases

14.2. In Accordance with IMDG
Proper Shipping Name : AEROSOLS non-flammable, (each not exceeding 1 L capacity)
Hazard Class : 2
Division : 2.2
Identification Number : UN1950
Label Codes : 2.2
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U

14.3. In Accordance with IATA
Proper Shipping Name : AEROSOLS, NON-FLAMMABLE
Identification Number : UN1950
Hazard Class : 2
Label Codes : 2.2
Division : 2.2
ERG Code (IATA) : 2L

14.4. In Accordance with TDG
Proper Shipping Name : AEROSOLS non-flammable
Hazard Class : 2.2
Identification Number : UN1950
Label Codes : 2.2

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Niagara Spray Starch (aerosol)	
SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard

Polyethylene glycol (25322-68-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Butane (106-97-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Propane (74-98-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Isobutane (75-28-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State Regulations

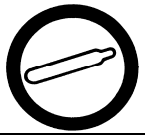
Butane (106-97-8)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Propane (74-98-6)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Isobutane (75-28-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

Niagara Spray Starch (aerosol)	
WHMIS Classification	Class A - Compressed Gas



Polyethylene glycol (25322-68-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Butane (106-97-8)	
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas

Propane (74-98-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas

Isobutane (75-28-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas

	Class B Division 1 - Flammable Gas

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

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 06/27/2016

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases:

Compressed gas	Gases under pressure Compressed gas
H280	Contains gas under pressure; may explode if heated

Party Responsible For The Preparation Of This Document

Niagara Starch Company: 1-816-329-1300 (for product information); 1-800-424-9300 (for emergencies)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS