SAFETY DATA SHEET

1. Identification

Product identifier: AMMONIATED GLASS CLEANER

Other means of identification
SDS number: RE1000000640

Recommended restrictions
Product use: Cleaner
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name:	Sprayway, Inc.
Address:	1000 INTEGRAM DR. Pacific, MO 63069
Telephone:	1-630-628-3000
Fax:	

Emergency telephone number: 1-866-836-8855

Canadian Importer
Advantage Maintenance Products Ltd.
105 Scott Ave
Paris, ON N3L 3E7
(519) 442-7881

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol	Category 1

Label Elements

Hazard Symbol:

Signal Word:	Danger
Hazard Statement:	Extremely flammable aerosol.
Precautionary Statements	
Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

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

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Butane		106-97-8	1 - 5%
Ethanol, 2-butoxy-		111-76-2	1 - 5%
Propane		74-98-6	1 - 5%
Ethanol		64-17-5	0.1 - 1%
Sodium nitrite, Nitrous acid, sodium salt (1:1)		7632-00-0	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

Methods and material for containment and cleaning up: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

Notification Procedures: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

Conditions for safe storage, including any incompatibilities: Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 1

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Butane	STEL	1,000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017)
Butane	STEL	750 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2017)
	TWA	600 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2017)
Butane	TWA	800 ppm 1,900 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work

			Environment) (12 2008)
Butane	TWA	1,000 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Butane	8 HR ACL	1,000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Butane	STEL	1,000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2018)
	15 MIN ACL	1,250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Butane	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2018)
Ethanol, 2-butoxy-	TWA	20 ppm 97 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Ethanol, 2-butoxy-	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethanol, 2-butoxy-	8 HR ACL	20 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	30 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol, 2-butoxy-	TWA	20 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Ethanol, 2-butoxy-	TWA	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Ethanol, 2-butoxy-	TWA	20 ppm 97 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Ethanol, 2-butoxy-	TWA	20 ppm	US. ACGIH Threshold Limit Values (2008)
Propane	TWA	1,000 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Propane	8 HR ACL	1,000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Propane	TWA	1,000 ppm 1,800 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Propane	TWA	1,000 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	15 MIN ACL	1,250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	TWA	1,000 ppm 1,880 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Ethanol	15 MIN ACL	1,250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	STEL	1,000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Ethanol	STEL	1,000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Ethanol	STEL	1,000 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	8 HR ACL	1,000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	TWA	1,000 ppm 1,880 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Ethanol	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (2009)
Ammonium hydroxide ((NH4)(OH))	STEL	35 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ammonium hydroxide	TWA	25 ppm	Canada. Manitoba OELs (Reg. 217/2006, The

((NH4)(OH))			Workplace Safety And Health Act) (03 2011)
Ammonium hydroxide ((NH4)(OH))	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	35 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
	STEL	35 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Ammonium hydroxide ((NH4)(OH))	STEL	35 ppm	US. ACGIH Threshold Limit Values (2008)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (2008)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
2-Propanol, 2-methyl-	TWA	100 ppm 303 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
2-Propanol, 2-methyl-	8 HR ACL	100 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	125 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
2-Propanol, 2-methyl-	TWA	100 ppm 303 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
2-Propanol, 2-methyl-	TWA	100 ppm	US. ACGIH Threshold Limit Values (2008)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: No data available.

Other: No data available.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: When using do not smoke. Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: Spray Aerosol
Color: No data available.
Odor: No data available.
Odor threshold: No data available.

pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	-104.44 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	3,447.3786 - 4,826.3301 hPa (20 °C)
Vapor density:	No data available.
Density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 37,600.14 mg/kg

Dermal
Product: ATEmix: 23,652.48 mg/kg

Inhalation
Product: ATEmix: 709.22 mg/l
ATEmix : 177.3 mg/l

Repeated dose toxicity
Product: No data available.

Specified substance(s):

Butane	LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study
Ethanol, 2-butoxy-	NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study
Propane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Ethanol	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	NOAEL (Rat(Male), Oral, 2 yr): 10 mg/kg Oral Experimental result, Supporting study LOAEL (Rat(Male), Oral, 14 Weeks): 115 mg/kg Oral Experimental result, Weight of Evidence study

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	in vivo (Rabbit): Irritating Experimental result, Key study
Ethanol	in vivo (Rabbit): Not irritant Experimental result, Key study

Sodium nitrite, Nitrous acid, sodium salt (1:1)	in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	Rabbit, 24 - 72 hrs: Irritating
Ethanol	Rabbit, 1 - 24 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Ethanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified**ACGIH Carcinogen List:**

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Ethanol, 2-butoxy-	LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Ethanol	LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	LC 50 (Oncorhynchus mykiss, 96 h): 0.54 - 26.3 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Ethanol, 2-butoxy-	EC 50 (Daphnia magna, 48 h): 1,550 mg/l Experimental result, Key study
Ethanol	LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	EC 50 (Daphnia magna, 48 h): 15.4 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study
Ethanol	NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	NOAEL (Cyprinus carpio): 1.05 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	EC 50 (Daphnia magna): 297 mg/l Experimental result, Key study EC 10 (Daphnia magna): 134 mg/l Experimental result, Key study
Ethanol	LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study

	NOAEL (Daphnia magna): 9.6 mg/l Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	NOAEL (Penaeus monodon): 2 mg/l Experimental result, Key study EC 50 (Penaeus monodon): 114.9 mg/l Experimental result, Key study LC 50 (Penaeus monodon): > 95.6 mg/l Experimental result, Key study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

Butane	100 % (385.5 h) Detected in water. Experimental result, Key study
Ethanol, 2-butoxy-	90.4 % Detected in water. Experimental result, Key study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Ethanol	95 % Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Ethanol	Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Butane	No data available.
Ethanol, 2-butoxy-	No data available.
Propane	No data available.
Ethanol	No data available.
Sodium nitrite, Nitrous acid, sodium salt (1:1)	No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Wash before disposal. Dispose to controlled facilities.

Contaminated Packaging: No data available.

14. Transport information

TDG

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2.1
Label(s):	–
EmS No.:	
Packing Group:	–
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user:	Not regulated.

IMDG

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2
Label(s):	–
EmS No.:	
Packing Group:	–
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user:	Not regulated.

IATA

UN Number:	UN 1950
Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es):	
Class:	2.1
Label(s):	–
Packing Group:	–
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user:	Not regulated.

15. Regulatory information

Canada Federal Regulations
List of Toxic Substances (CEPA, Schedule 1)

Chemical Identity
Ethanol, 2-butoxy-

Export Control List (CEPA 1999, Schedule 3)
Not Regulated

National Pollutant Release Inventory (NPRI)
Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements

NPRI PT5	ButaneEthanol, 2-butoxy-

PropaneEthanolCyclohexene, 1-methyl-4-(1-methylethenyl)- , (4R)-CA Prop 65 Removed per Natural Exemption

Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)

NPRI	Ethanol, 2-butoxy-

Greenhouse Gases

Not Regulated

Controlled Drugs and Substances Act

CA CDSI	Not Regulated
CA CDSII	Not Regulated
CA CDSIII	Not Regulated
CA CDSIV	Not Regulated
CA CDSV	Not Regulated
CA CDSVII	Not Regulated
CA CDSVIII	Not Regulated

Precursor Control Regulations

Not Regulated

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
Ontario Inventory:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

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

Issue Date:	11/26/2019
Revision Date:	No data available.
Version #:	1.0
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.