Safety Data Sheet

Nonflammable Gas Mixture: Ethanol 1-999 ppm/Nitrogen 99%

Section 1. Identification

GHS product identifier : Nonflammable Gas Mixture: Ethanol 1-999 ppm/Nitrogen 99%
Other means of Identification : Not available
Product Use : Synthetic/Analytical chemistry
SDS# : 303
Suppliers details : AlcoPro, Inc
2547 Sutherland Ave
Knoxville, TN 37919
800-227-9890

Section 2. Hazards identification

OSHA/HCS : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Classification of the substance or mixture : GASES UNDER PRESSURE – Compressed gas
GHS Label elements
Hazard pictograms :

Signal word : Warning
Hazard statements : Contains gas under pressure; may explode if heated.
Precautionary statements
General :
Prevention :
Response : Not applicable
Storage : Store in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Do not incinerate empty or partially filled containers.
Disposal : Not applicable

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available
CAS number/other identifiers
CAS number : Not applicable
Product code : 303

Ingredient Name	%	CAS number
Nitrogen	99	7727-37-9
Ethanol	0.0001-0.0999	64-17-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for 10 minutes. Get medical attention if irritation occurs.

Inhalation The health hazards associated with overexposure are minimal, due to the small size of the container and small volume of the contents. If a release of many containers of this product occurs at the same time, an oxygen-deficient environment can occur, resulting in a hazard of asphyxiation.

Skin contact The health hazards associated with overexposure are minimal, due to the small size of the container and small volume of the contents.

Ingestion : As this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Contact with rapidly expanding gas may cause burns or frostbite

Inhalation : Exposure to decomposition products may cause a health hazard.

Over-exposure signs/symptoms

Eye Contact : No specific data

Inhalation : No specific data

Skin contact : No specific data

Ingestion : No specific data

Indication of immediate medical and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

Specific treatments : No specific treatment

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Section5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire

Unsuitable extinguishing media : None known

Specific hazards arising from the chemical : Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode

Hazardous thermal Decomposition products : Decomposition products may include the following materials: Nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire fighters wear appropriate protective equipment.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environment pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk.

Large Spill : Stop leak if without risk. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Contains gas under pressure. Avoid contact with eyes. Avoid breathing gas. Do not puncture or incinerate container. Protect cylinders from physical damage.

Section 7. Handling and storage

Advice on general or occupational hygiene : See Section 8 for additional information on hygiene measures

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulation. Store away from direct sunlight in a dry, cool and well-ventilated area. Cylinder temperatures should not exceed 52° C (125 °F).

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering : Good general ventilation should be sufficient to control worker exposure to airborne contaminants

Environmental exposure : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protections measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is

possible, the following protection should be work, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Section 9. Physical and chemical Products

Appearance

Physical state	Gas
Color	Not available
Melting/freezing point	-210.01°C (-346°F) this is based on data for the following ingredient: nitrogen
Critical temperature	Lowest known value: -146.95°C (-232.5°F) (nitrogen)
Odor	Not available
Odor threshold	Not available
pH	Not available
Flash point	Not available
Burning time	Not applicable
Burning rate	Not applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower and upper explosive (flammable) limits	Not available
Vapor pressure	Not available
Vapor density	Highest known value: 0.97 (Air =1) (nitrogen)
Gas Density (lb/ft^3)	Only known value: 0.0472 (nitrogen)
Relative density	Not applicable
Solubility	Not available
Solubility in water	Not available
Partition coefficient: noctanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
SADT	Not available
Viscosity	Not applicable

Section 10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients
Chemical stability	The product is stable
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur
Conditions to avoid	No specific data
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced
Hazardous polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available

Irritation/Corrosion
Not available

Sensitization
Not available

Mutagenicity
Not available

Carcinogenicity
Not available

Reproductive toxicity
Not available

Teratogenicity
Not available

Specific target organ toxicity (single exposure)
Not available

Specific target organ toxicity (repeated exposure)
Not available

Aspiration Hazard
Not available

Information on the likely routes of exposure	Not available
Potential acute health effects	
Eye Contact	Contact with rapidly expanding gas may cause burns or frostbite
Inhalation	Exposure to decomposition products may cause a health hazard.
Ingestion	As this product is a gas, refer to the inhalation section.
Symptoms related to the physical, chemical and toxicological characteristics	
Eye Contact	No specific data
Inhalation	No specific data
Skin contact	No specific data
Ingestion	No specific data
Delayed and immediate effects and also chronic effects from short and long term exposure	
Short term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available
Long term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available
Potential chronic health effects	Not available
General	No known significant effects or critical hazards
Carcinogenicity	No known significant effects or critical hazards
Mutagenicity	No known significant effects or critical hazards
Teratogenicity	No known significant effects or critical hazards
Developmental effects	No known significant effects or critical hazards
Fertility effects	No known significant effects or critical hazards
Numerical measures of toxicity	
Acute toxicity	Not available

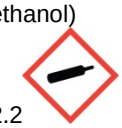
Section 12. Ecological information

Toxicity	Not available
Persistence and degradability	Not available
Bio accumulative potential	Not available
Mobility in soil	
Soil/water partition coefficient (K_{OC})	Not available
Other adverse effects	No known significant effects or critical hazards

Section 13. Disposal considerations

Disposal methods	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1956	UN1956	UN1956	UN1956	UN1956
UN Proper shipping name	COMPRESSED GAS, N.O.S. (nitrogen, ethanol)	COMPRESSED GAS, N.O.S. (nitrogen, ethanol)	COMPRESSED GAS, N.O.S. (nitrogen, ethanol)	COMPRESSED GAS, N.O.S. (nitrogen, ethanol)	COMPRESSED GAS, N.O.S. (nitrogen, ethanol)
Transport class	 2.2	 2.2	 2.2	 2.2	 2.2
Packing group	N/A	N/A	N/A	N/A	N/A
Environment	No.	No.	No.	No.	No.
Additional Information		Explosive Limit and Limited Quantity Index 0.125 Passenger Carrying Road or Rail Index 75			

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available

Section 15. Regulatory information

U.S. Federal regulations	TSCA 8(a) CDR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): All components are listed or exempted.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not listed
Clean Air Act Section 602 Class I	Not Listed

Substances

Clean Air Act Section 602 Class II Substances	Not Listed
DEA List I Chemicals (Precursor Chemicals)	Not Listed
DEA List II Chemicals (Precursor Chemicals)	Not Listed

SARA 302/304

Composition/information on ingredients

No products were found

State regulations

Massachusetts	The following components are listed: NITROGEN
New York	None of the components are listed
New Jersey	The following components are listed: NITROGEN
Pennsylvania	The following components are listed: NITROGEN
Canada Inventory	All components are listed or exempted

International regulations

International lists	**Australia inventory (AICS):** All components are listed or exempted. **China inventory (IECSC)**: All components are listed or exempted. **Japan inventory:** Not determined **Korea inventory:** All components are listed or exempted. **Malaysia Inventory (EHS Register):** Not determined **New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted. **Philippines Inventory (PICCS):** All components are listed or exempted. **Taiwan Inventory (CSNN):** Not determined
Chemical Weapons Convention List Schedule I Chemicals	Not Listed
Chemical Weapons Convention List Schedule II Chemicals	Not Listed
Chemical Weapons Convention List Schedule III Chemicals	Not Listed

Canada

WHMIS (Canada)	Class A: Compressed Gas **CEPA Toxic substances:** None of the components are listed. **Canadian ARET:** None of the components are listed. **Canadian NPRI:** None of the components are listed. **Alberta Designated Substances:** None of the components are listed. **Ontario Designated Substances:** None of the components are listed. **Quebec Designated Substances:** None of the components are listed.

Section 16. Other Information

History

Date of printing	4/4/16
Date of issue/Date of Revision	4/4/16
Date of previous issue	No previous validations

Version	0.01
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bio concentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow= Logarithm of the octanol/water partition coefficient MARPOL 73/78= International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations ACGIH – American Conference of Governmental Industrial Hygienists AIHA = American Industrial Hygiene Association CAS = Chemical Abstract Services CEPA = Canadian Environmental Protection Act CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act (EPA) CFR = United States Code of Federal Regulations CPR = (Controlled Products Regulations) DSL = Domestic Substances List GWP = Global Warming Potential IARC = International Agency for Research on Cancer ICAO = International Civil Aviation Organization Inh = Inhalation LC – Lethal concentration LD = Lethal Dosage NDSL = Non-Domestic Substances List NIOSH = National Institute for Occupational Safety and Health TDG = Canadian Transportation of Dangerous Goods Act and Regulations TLV = Threshold Limit Value TSCA – Toxic Substances Control Act WEEL = Workplace Environmental Exposure Level WHMIS = Canadian Workplace Hazardous Material Information System
References	Not available

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist